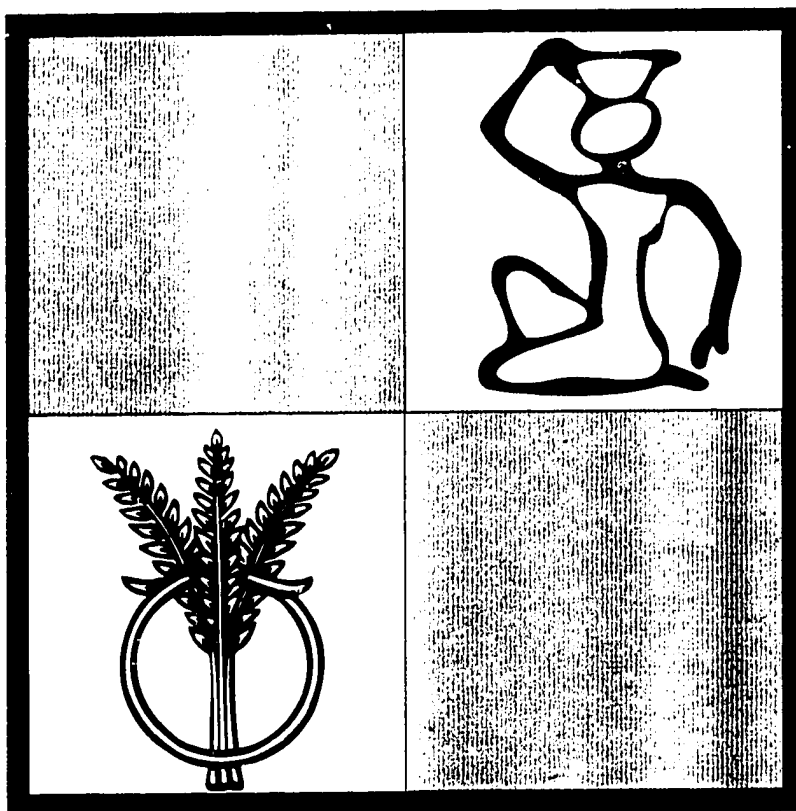


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The World Food Day Report



The President's Report
to the U.S. Congress

October 16, 1993

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to the U.S. Congress**

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LIST OF ABBREVIATIONS

| | |
|---------|--|
| ACC/SCN | Administrative Committee on Coordination, Subcommittee on Nutrition (United Nations) |
| ACDI | Agricultural Cooperative Development International |
| ADRA | Adventist Development and Relief Agency International |
| A.I.D. | Agency for International Development |
| BMR | Basal metabolic rate |
| CAR | Central African Republic |
| CCC | Commodity Credit Corporation |
| CDOs | Cooperative development organizations |
| CIS | Commonwealth of Independent States |
| CNAA | Citizens' Network Agribusiness Alliance |
| CRS | Catholic Relief Services |
| CSB | Corn soya blend |
| DALY | Disability-adjusted life-year |
| DES | Dietary energy supply |
| DFA | Development Fund for Africa |
| EC | European Community |
| ECOWAS | Economic Organization of West African States |
| ESF | Economic Support Fund |
| FAC | Food Aid Convention |
| FAO | Food and Agriculture Organization (United Nations) |
| FFW | Food for Work |
| FHA | Bureau for Food and Humanitarian Assistance |
| FHI | Food for the Hungry International |
| FTC | Feed the Children |
| FSI | Food security index |
| FTF | Farmer-to-farmer |
| FY | Fiscal year |
| GDP | Gross domestic product |
| GNP | Gross national product |
| HDI | Human development index |
| IBRD | International Bank for Reconstruction and Development |
| ICRC | International Committee of the Red Cross |
| ICDS | Integrated Child Development Services Scheme |
| ICN | International Conference on Nutrition |
| ICP | International Comparisons Project (United Nations) |
| IDD | Iodine deficiency disorders |
| IEFR | International Emergency Food Reserves |
| IFAD | International Fund for Agricultural Development |
| IFPRI | International Food Policy Research Institute |
| IMF | International Monetary Fund |
| INTLIFE | International LIFELINE |
| LAC | Latin America and Caribbean |
| LIFDCs | Low-income food-deficit countries |
| LOP | Life-of-project |
| MCH | Maternal and child health |
| NCHS | National Child Health Surveys |
| NGOs | Non-government organizations |
| NIS | New Independent States (former states of the Soviet Union) |
| OIC | Opportunities Industrialization Centers International |
| PCI | Project Concern International |
| PD | Policy determination |

LIST OF ABBREVIATIONS

| | |
|----------------|--|
| P.L. | Public law |
| PPC | Purchasing power of currencies |
| PPP | Purchasing power parities |
| PVOs | Private voluntary organizations |
| RAA | Restructuring Agriculture and Agribusiness project |
| RAAPS | Restructuring Agriculture and Agribusiness Private Sector cooperative agreement |
| SARA | Support for Agriculture Restructuring in Albania project |
| SC | Save the Children Federation, Inc. |
| SD | Standard deviation |
| SF | School feeding |
| U.N. | United Nations |
| UNDP | United Nations Development Programme |
| UNICEF | United Nations Children's Fund |
| U.S. | United States |
| USAID | U.S. Agency for International Development |
| USDA | U.S. Department of Agriculture |
| USSR | Union of Soviet Socialist Republics |
| VOCA | Volunteers in Overseas Cooperative Assistance |
| WAAV | Winrock Alliance of Agricultural Volunteers |
| WFP | World Food Program |
| WFP/PRO | World Food Program/Protracted Refugee Program |
| WFP/REG | World Food Program/Regular Food Program |
| WHO | World Health Organization |
| WSB | Wheat soy blend |
| WVRD | World Vision Relief and Development, Inc. |

EXECUTIVE SUMMARY

The United States (U.S.) provided food assistance to millions of people around the world in fiscal year (FY) 1993, working to improve food security in 90 countries through programs implemented by the U.S. Agency for International Development (A.I.D.) and the U.S. Department of Agriculture (USDA). The U.S. Government provided 7,786,106 metric tons valued at \$2.28 billion dollars to these countries. Within these development and humanitarian programs to fight world hunger, A.I.D. and USDA work in partnership with host-country governments, private voluntary organizations, and international agencies such as the International Committee of the Red Cross and the World Food Program (WFP).

As mandated by Section 407(h) of the Agricultural Development and Trade Act of 1990 (Public Law 480, as amended), the *World Food Day Report* seeks to "[assess] progress towards food security in each country receiving U.S. Government food assistance." This year's report includes a much-expanded section on progress and trends around the world and a separate chapter with detailed profiles summarizing food security and food aid in each country receiving U.S. commodities. New Title II guidelines and expanded Title III program monitoring systems are being established which will generate data on the achievements and impact of food aid programs as well as on trends in food security; although these data are not yet available for all countries and programs, this year's report provides narrative information on FY 1993 food aid program impacts whenever possible.

Hunger, and the malnutrition that results from food insecurity, is a grievous problem. The Food and Agriculture Organization (FAO) estimates that as of 1990 approximately one person in five in the developing world suffered from inadequate energy intake, a considerable improvement from 1975 when one person in three was underfed. Additionally, the proportion of children who are underweight has also fallen over the past 15 years, but the total number has risen due to the underlying population growth in certain regions.

Despite these signs of progress in the fight for a food secure world, Africa remains a cause for concern. Sub-Saharan Africa, where average real per capita income is the lowest in the world, continues to stagnate in food security terms: gains in per capita food production are minimal, population growth continues to outpace economic gains and nutritional status has generally deteriorated or remained static for the past decade. In Africa and other exceptionally vulnerable areas of the world, food assistance is not only used to enhance long-term food security and economic growth, but also responds to the growing frequency of natural disaster and civil strife emergencies that threaten food security in already fragile and uncertain environments.

In numerous conspicuous and tragic cases around the world, food aid has played a key role in responding to humanitarian emergencies in the context of natural catastrophes, political disruptions and civil strife. For example, U.S. Government food aid has prevented famine and suffering in Southern Africa in the aftermath of the 1992 drought, and has saved lives and mitigated suffering in Somalia, in former Yugoslavia and during prolonged civil disturbances in such countries as Mozambique, Liberia and Sudan.

This report reviews recent information showing that malnutrition and food insecurity are reduced through the goals and objectives of much of U.S. foreign assistance; that is, improved economic growth, improved social support systems and strengthened agricultural policies.

Chronic malnutrition is, to a large extent, a consequence of poverty. Higher incomes permit people to purchase a more balanced and adequate diet, as well as obtain better medical care and hygiene. However, rising incomes do not automatically produce improved nutritional status in all socioeconomic groups. This report cites an analysis that shows that some countries have levels of malnutrition much lower than expected given their level of income, such as Jamaica, Costa Rica, Zimbabwe, and Egypt. One explanation for these "winning performers" is the significant role of these countries' public expenditures for social support (i.e., health, education, and social welfare). Clearly, in these better performing countries, factors other than aggregate income have contributed to improved nutrition levels.

EXECUTIVE SUMMARY

Just as poverty affects household and individual access to food, food and agricultural policies affect food availability and access at national and household levels, thus affecting nutritional status and food security. In studies presented at last year's International Conference on Nutrition, it was demonstrated that national-level policies can enhance nutritional status through increased incomes and lower food prices, improved health and sanitation of communities, and freeing time for mothers for nurturing and child care.

Using the most recent data on key food security indicators for 66 of the 90 countries receiving U.S. food aid, the report was able to show that more countries are improving than are declining in their long-term food security. However, to show the direct impact of the U.S. Government food aid program on such trends has proven to be a complex and difficult task.

In the face of these challenges of world hunger and the management of the food aid program, the President of the United States and the Executive Branch are committed to pursuing both enhanced food security around the world and an improved ability to measure progress toward that goal, and to working with the members of Congress to review the U.S. Public Law 480 (P.L. 480) authorizing legislation during 1994-1995 toward that end.

CHAPTER I

WORLD HUNGER: THE NATURE OF THE PROBLEM

A. U.S. FOOD ASSISTANCE — THE POLICY CONTEXT

1. The Legislative Mandate

Since 1954, the U.S. Public Law 480 (P.L. 480) program has provided developing countries with almost \$50 billion in food assistance. Current U.S. Government policy is summarized in the Agricultural Development and Trade Act of 1990, which states:

It is the policy of the United States to use its abundant agricultural productivity to promote the foreign policy of the United States by enhancing the food security of the developing world through the use of agricultural commodities and local currencies accruing under the Act to:

- 1) *combat world hunger and malnutrition and their causes;*
- 2) *promote broad-based, equitable, and sustainable development, including agricultural development;*
- 3) *expand international trade;*
- 4) *develop and expand export markets for United States agricultural commodities; and*
- 5) *foster and encourage the development of private enterprise and democratic participation in developing countries.*

The Act goes on to define food security as “access by all people at all times to sufficient food and nutrition for a healthy and productive life.” Under the Law, the Agency for International Development (A.I.D.) and the U.S. Department of Agriculture (USDA) share the responsibility for implementing Congress’ legislative intent through a variety of programs and projects.

On World Food Day, October 16 of each year, in accordance with Section 407(h) of the Act, “the President shall submit to the appropriate committees of Congress a report, prepared with the assistance of the Secretary (of Agriculture) and the Administrator (A.I.D.), assessing progress toward food security in each country receiving United States Government food assistance. Special emphasis should be given in such report to the nutritional status of the poorest populations in such countries.” With this mandate in mind, this year’s *World Food Day Report* includes a much-expanded section on progress and trends in food security around the world, and a separate chapter with detailed profiles summarizing food security and food aid in each country receiving U.S. commodities. Building upon this foundation, future issues of the *World Food Day Report* will also cover the results and impact of food activities in each country, as programs begin to mature and monitoring and evaluation systems are refined. The President and the Executive Branch are committed to pursuing both enhanced food security around the world and an improved ability to measure progress toward that goal, and to working with Congress to review the authorizing legislation during 1994-1995.

2. A.I.D. Policy Determination

In the Food Security Policy Determination issued in April 1992 (PD-19), A.I.D. provides a broad definition of food security, incorporating the legislative definition cited above, for the purpose of resource programming directed to food security objectives: “When all people at all times have both physical and economic access to sufficient food to meet their dietary needs for a productive and healthy life.” PD-19 notes that “within the context of food security, three distinct variables are central to the attainment of food security: availability, access, and utilization.”

Food availability is achieved when sufficient quantities of appropriate, necessary types of food are consistently available to individuals within a country (e.g., through domestic production, commercial imports, or donors). **Food access** is ensured when households and all individuals within them have adequate resources (e.g., income, home production, functional market and transport systems) to obtain appropriate foods for an adequate nutritious diet. **Food utilization** is the proper biological use of food, requiring appropriate food processing and storage, adequate knowledge of nutrition/child care, and health and sanitation services.

Understanding these three aspects of food security can help identify constraints and define potential interventions that can help enhance food security in a specific country or within a particularly vulnerable group.

B. WHAT IS FOOD SECURITY?

Although worldwide production provides an ample global supply of calories and nutrients, food is not equally available and accessible to all countries, to all households, nor to all individuals. Even in food-abundant countries, food security is not assured from season to season, nor throughout each year. This food insecurity means that millions of people — often children — suffer from hunger and malnutrition which cause grievous and irreversible damage. In addition, food insecurity acts as a barrier to sustainable long-term economic growth in many nations. Hunger, and the resulting suffering caused by malnutrition, is among the more serious developmental challenges facing the world today. The United Nations (U.N.) estimates that the proportion of the population underfed in developing countries has fallen substantially over the past 15 years. Figure 1 illustrates global trends in malnutrition.

| Figure 1: Malnutrition in Developing Countries, 1974-1990 | | | | |
|---|------------------|---------|-------------------|---------|
| | Percent Affected | | Number (millions) | |
| | 1974-76 | 1988-90 | 1974-76 | 1988-90 |
| "Underfed": population (all ages) with energy intake (kcal/caput/day) on average below 1.54 basal metabolic rate (BMR) over one year | 33% | 20% | 976 | 786 |
| | 1975 | 1990 | 1975 | 1990 |
| "Underweight": children (under five years) with weight below -2 standard deviations (SD) of reference point | 42% | 34% | 168 | 184 |
| Notes: 1. Data on population with low energy intake (underfed) are calculated by the Food and Agriculture Organization (FAO). The estimates are for the periods 1974 to 1976 and 1988 to 1990. 2. Underweight children results are estimated by the U.N. Administrative Committee on Coordination, Subcommittee on Nutrition (ACC/SCN) for Children and Women, using a cut-off of -2 SD of the median from the 1975 WHO Child Health Survey (NCHS) reference point. Source: ACC/SCN | | | | |

In 1975, approximately one in three people in developing countries was underfed, compared to one in five in 1989. This estimate implies a considerable reduction in the total number of people affected by inadequate energy intake, from nearly 1 billion to just below 800 million. These recent calculations by FAO benefit from revised methods which provide an improved estimate for China. These calculations exclude the New Independent States (NIS).

1. Factors Affecting Food Security

Many factors interact to create food-insecure situations. In many developing and reindustrializing nations, national and local markets are dysfunctional, and countries lack the foreign exchange to participate actively in international markets for food. Government policies may prevent effective food markets from operating; marketing and transport systems may be ineffective. Civil war or ethnic conflicts may cut off whole segments of a country's population from food supplies. Limited arable land, environmental degradation, and lack of adequate farm inputs (including new technologies and varieties) may constrain domestic agricultural production. Economic and financial constraints, as well as civil strife and natural disasters, may make food imports necessary.

Another factor affecting food security is the underlying dynamic of population growth in regions where hunger is prevalent. Although rates of undernutrition are falling, rapid growth of population inflates the number of malnourished, and weakens the capacity of countries to become food self-reliant through domestic production and commercial imports. However, the United Nations Children's Fund (UNICEF) reports that the annual number of births is declining in Latin America; births will peak in Asia in the mid-1990s (the year 2000 for South Asia) and then begin to fall. Only in Africa will the annual number of births continue to rise well into the next century.

Even when a country can acquire adequate supplies of food on a national level from domestic production, commercial imports, or from donations, households in that country may still lack access to those aggregate supplies. In many countries, inadequate food distribution systems are unable to meet consumers' needs. Many households lack the necessary income to buy food if they cannot grow sufficient amounts themselves, and high unemployment keeps incomes low.

The nutritional needs of individuals within households may not be recognized — and even when they are, intrahousehold distribution or feeding status and cultural practices may prevent individuals from taking full advantage of food provided to them. Individuals often lack potable water or the necessary sanitation and health resources to ensure that the food they do eat is utilized effectively by their bodies.

2. Aspects of Food Security: Availability, Access, and Utilization

Food security can be seen as a dynamic interaction between **national availability**, or national supply; **household access**, or household demand; and **individual utilization**, or effective individual consumption and nutritional benefit. Food security is achieved when supplies in a nation are sufficient to provide everyone with an adequate diet throughout the year, households are able to exercise effective demand and acquire sufficient food, and the nutritional needs of individuals within households are met.

Just as we think of food security as comprising **aspects** (availability, access, and utilization) and **levels** (national, household, and individual), we can also view food security within a **time frame**. In the long-term, we work to address chronic food insecurity through national, sectoral, or community development interventions designed to affect economic and social conditions. In the short-term we often focus on protecting transitory food insecurity in fragile and uncertain circumstances where famine, disaster, and civil strife create food emergencies. Food aid can serve a critical role in protecting existing systems when emergencies threaten an already fragile food security situation.

Efforts to enhance food security often begin by ensuring that food is available at the national level, focusing on maximizing efficient domestic production and building the ability to import commercially. In countries that are not yet self-reliant in producing and importing food, food aid and other external assistance can be mobilized to supplement national supplies and to encourage agricultural development amid broad-based economic growth.

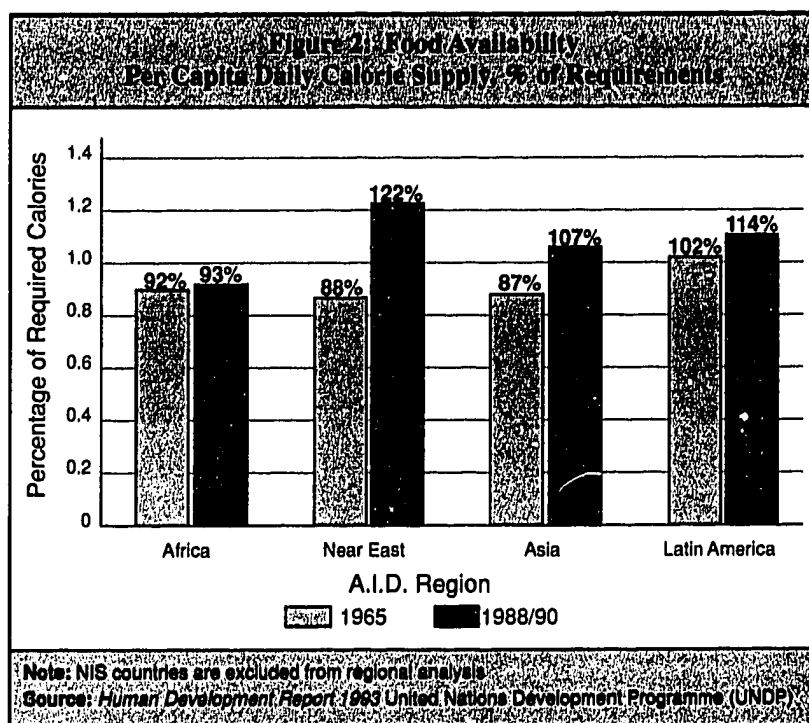
FAO estimates that the production of staple foods worldwide grew by 2.5 percent in the 1992-1993 crop season, compared to 1991-1992 when output fell sharply, although world production remains more than 1 percent below the 1990 level. The recovery was muted in developing nations, with an increase of less than 1 percent. In fact, FAO estimates that in countries with a 1989 per capita income below \$1,135, who were also net importers of cereals, production actually fell by 2 percent.

Estimates of national food production and imports are too aggregate to illustrate the full spectrum of food security concerns. A more useful measure is per capita calorie supply, presented in Figure 2, which shows trends in food availability. Note that reliable data on Eastern Europe and the NIS are not yet available. This illustration shows that per capita availability increased from 1965 to 1988-1990 in all regions. By 1988-1990 the average daily calorie supply was also greater than 100 percent of per capita requirements in all regions except Sub-Saharan Africa.

In studies prepared for the International Conference on Nutrition (ICN) in December 1992, the International Food Policy Research Institute (IFPRI) noted that well-designed agricultural policies and programs at the national level can influence food security of households and individuals through several paths: 1) increased incomes and lower food prices, which permit increased food consumption; 2) improvements in the health and sanitation environment of communities and households, which may reduce morbidity and disease; and 3) effects on time-allocation patterns

of mothers, which may increase time spent on self-care, nurturing, and child care.

At the household level, we seek to ensure that households have access to food — they can either produce their own food, or they earn income with which to purchase it. Local market systems and transport infrastructure facilitate market access. In countries where incomes are too low, too unstable, or unevenly distributed, or where food prices are too high or too unstable, external assistance can support development programs and sectoral initiatives that support broad-based income growth, increase domestic production, improve market infrastructure and physical access to food, and help stabilize prices. Food aid can also be distributed or channelled to target particular economic groups, regional areas, or vulnerable populations.



Food-insecure households can be members of different socioeconomic and demographic groups in different areas, although the following common characteristics emerged from a 1991 comparative study by IFPRI surveying income source patterns of the malnourished rural poor in Africa, Asia, and Latin America.

- Women's income has an important influence on the food security status of the household, and female-controlled income is more likely to be spent on food and nutrition than male-controlled income.
- Ownership of and/or access to even small pieces of land for farming has a substantial positive effect on the food security status of rural households at the same income level.
- Food-insecure households tend to be larger, and have more dependents and a younger age composition.
- Food security depends upon the existence of community/state social support systems to mitigate risk.

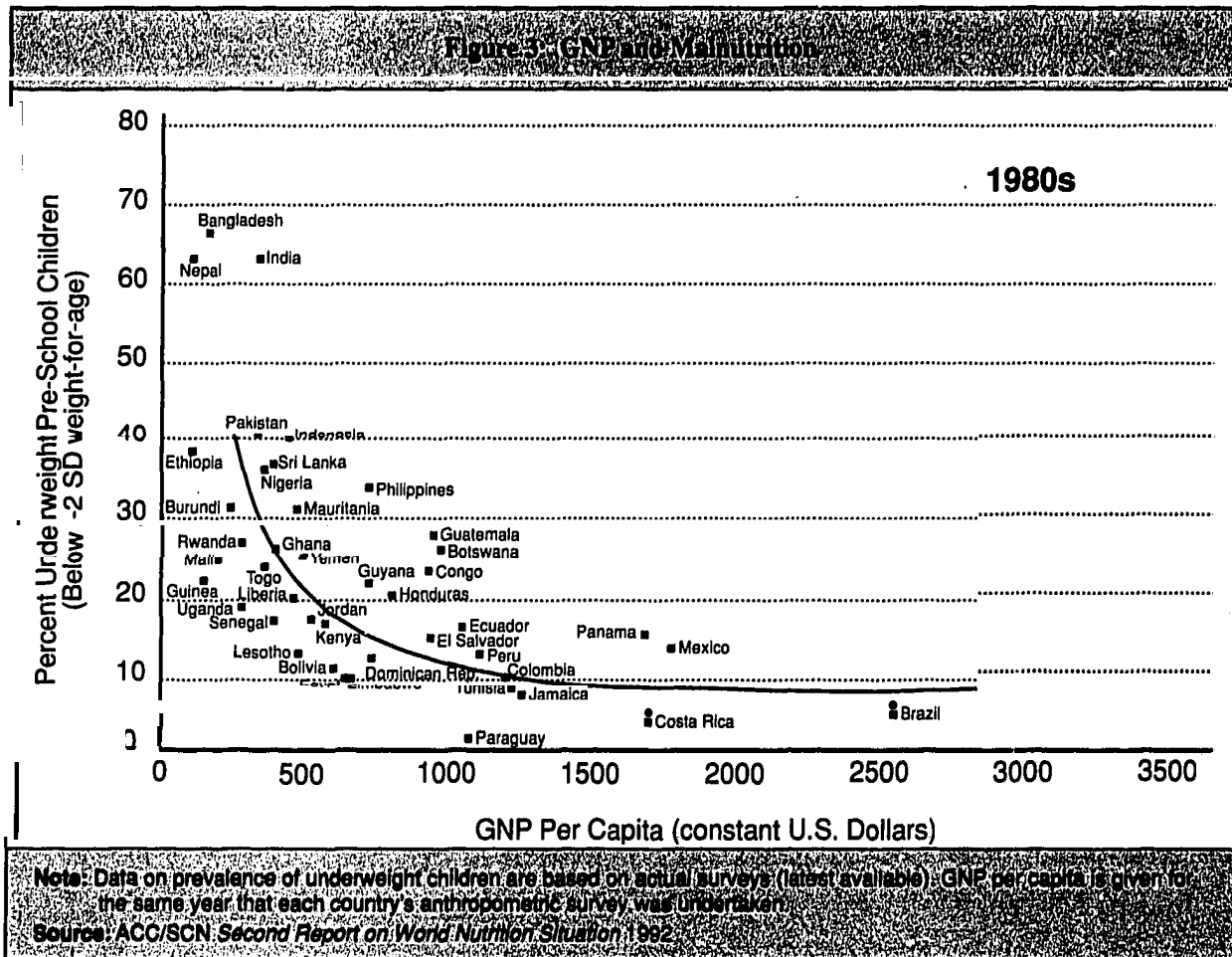
Once food is available nationally and throughout the regions of a country, and households have access to that food, how well food is utilized can still constrain food security and nutritional status. The actual food consumed, its calories, protein, vitamins, and minerals, interact in a biological system whose effectiveness is determined by health and sanitation. Access to health services, potable water, and sanitary living facilities are key elements in the network of factors which affect nutritional status; food consumption and disease interact in what the World Bank calls a "malnutrition-infection complex." In most countries, a relatively small number of people die from outright starvation; many more die from infectious diseases to which people weakened by hunger are especially susceptible.

C. POVERTY, HUNGER, AND NUTRITION: UNDERSTANDING THE FOOD SECURITY CONNECTION

Hunger and malnutrition transcend the labels of "agriculture" or "health." A population physically and mentally weakened by hunger cannot participate actively in their nation's economic development, and the contribution of millions of lives is lost. Hunger is a bio-socioeconomic phenomenon perpetuated by poverty, and food security is the socioeconomic context required to achieve the ultimate biological goal — improved nutritional status. Chronic malnutrition is, to a large extent, a consequence of poverty. Higher incomes allow people to purchase a more

balanced and adequate diet, as well as obtain better medical care and hygiene. For example, in Indonesia during the period of 1984 to 1987, rising incomes translated into reduced malnutrition in nearly all 52 regions of the country. The proportion of families eating less than 2,200 calories per day declined by only 2 percent, but the decline was 9 percent at 1,800 calories and 26 percent at 1,400 calories.

The general relationship between economic and nutritional status can be seen in Figure 3, which presents the prevalence of underweight pre-school children and the gross national product (GNP) per capita for selected countries receiving U.S. food aid.



Growth data on underweight children, based on surveys in the 1980s, were plotted against GNP per capita data for the same year that each country's child survey was undertaken. Then, a statistical analysis (least-squares regression) was undertaken to examine the characteristics of the statistical relationship.

Just as food consumption does not guarantee improved nutritional status in all individuals, rising incomes do not automatically produce improved nutritional status in all socioeconomic groups. Income distribution, for example, is a critical link in the chain connecting income and nutrition. However, there is an observable correlation between income and nutritional status, as we see in Figure 3. The statistical analysis indicates a strong relationship in the range between U.S. \$200 and \$900 per capita. Increasing GNP per capita from \$300 to \$600 is associated with a decline in the prevalence of underweight children from around 34 percent to 16 percent (a reduction of over half). Not surprisingly, the close statistical relationship between increasing income and decreasing malnutrition lessens beyond \$900 per capita income level. Malnutrition has many contributing factors in addition to income level.

One very important observation is that the fitted regression line, which illustrates the statistically "expected" relationship, shows some countries below and to the left of the fitted line — signifying that their levels of malnutrition were lower than expected given their level of income. One explanation for these "winning performers" could be the significant role of these countries' public expenditures for social support (health, education, and social welfare). In Jamaica, Costa Rica, Zimbabwe, and Egypt, social program budgets as a proportion of GNP in 1987 ranged from 13 percent to 19 percent, in contrast to Mexico and Indonesia, which have much lower social support expenditures of 4 percent and 3 percent respectively. In these countries, factors other than aggregate income have contributed to improved nutritional status.

Earlier in this chapter we addressed statistical indicators which provide proxies for nutritional status and food security, such as incidence of child malnutrition and per capita caloric availability. While figures such as these might help illustrate the degree of malnutrition and food insecurity in a country, they cannot explain the degree to which overall nutritional status results from infectious disease, inadequate maternal and child health care, insufficient household income, micronutrient deficiencies, or a combination of these factors. A wide range of multisectoral health, nutrition, and development activities funded by donors such as A.I.D. are required in order to effectively attack the many factors that contribute to hunger and malnutrition. To help place these interrelated dynamics in context, Annex A presents a summary of the latest data available for national estimates of malnutrition, human development status, child mortality, per capita food availability, and per capita income.

D. NUTRITIONAL ASPECTS

Although national statistics may be helpful in examining food availability and access, such as per capita income and calorie supply data which are closely related to nutritional status, they are not accurate predictors of nutritional deficits. National averages can mask large gaps in food access among households, or among members within a household. Large sectors of a population which is relatively food-secure on an average or aggregate level may have an inadequate diet with sub-standard levels of calories, protein, and micronutrients. Recognizing the dynamic relationship between household food security and nutritional status means understanding the many complex factors that contribute to hunger. Thus, it is important to understand the framework of nutrition and the primary analytical tools used to assess nutritional status.

A nutritionally acceptable diet provides enough energy, measured in calories, to support normal physical and mental activity. The energy required for normal growth, home activity, and work is provided by the calories consumed each day. The optimal daily diet should also include an adequate proportion of calories provided by protein sources. Usually, diets that are acceptable in energy content are also acceptable in protein content. Finally, a proper diet should also include a range of micronutrients. These are vitamins and minerals essential for healthy human growth but needed in very small quantities, such as vitamin A, iron, iodine, zinc, calcium, vitamin C, and the B vitamins. When micronutrient deficiencies exist, growth and development suffer and the risk of infectious and nutritional disorders increases. Annex B provides detailed technical notes on food security and malnutrition.

The concept we have labelled as "food security" feeds into a set of dynamic interactions between health, diet, and poverty, and other socioeconomic factors. Because of the complexity and scope of these dynamic interactions, the effectiveness of U.S. Government assistance, which seeks to enhance food security, cannot be measured by a single variable. However, because the legislation places a "special emphasis on the nutritional status" of the people in food-insecure situations, a variable serving as a proxy for overall nutritional status is useful. The most commonly available data are estimates of child nutrition monitored by international agencies such as the World Health Organization (WHO) and UNICEF.

One of the most accepted measures of child nutrition is a comparison of the physical growth of malnourished children with a reference population of children of the same age in a healthy, well-nourished population. The statistic most commonly used by international organizations including A.I.D. is **underweight (low weight for age)**, which is a composite measure of **stunting and wasting**, and thus a mix of chronic and acute undernutrition, useful for defining the overall magnitude of malnutrition. Regional trends in malnutrition are discussed in Chapter III.

CHAPTER II

U.S. GOVERNMENT INTERVENTIONS TO IMPROVE FOOD SECURITY

Through food assistance programs, the U.S. Government and the American people use the agricultural abundance of American farms to improve the food security of poor people in developing countries, thus fighting hunger and malnutrition in those countries. As the world's largest food aid donor, the U.S. guaranteed in the 1986 Food Aid Convention (FAC) to provide a minimum annual contribution of 4.47 million tons of food (in wheat equivalent), the largest single minimum annual pledge of all signatories. In fact, the U.S. has consistently supplied more than its minimum annual contribution, accounting for 60 percent of total FAC shipments in the 1980s.

Figure 4 summarizes U.S. Government food assistance in FY 1993. Details on each program are provided in Annex C, including commodities, tonnage, and total program value. An analysis of total FY 1993 program value (commodities plus transport) shows that 59 percent of FY 1993 resources went to "least developed countries" as defined in Section 302 of the legislation. The statistic changes to 83 percent if food sent to Europe and the NIS is considered separately.

| | Title I | Title II | Title III | Section 416(b) | Total | % of Total |
|---------------------------------|--------------|--------------|--------------|----------------|---------------|--------------|
| Africa | 15.0 | 364.0 | 89.0 | 205.3 | 673.3 | 29.6 |
| Asia | 70.0 | 209.1 | 119.9 | 22.8 | 421.8 | 18.5 |
| Europe and NIS | 219.0 | 96.3 | 0.0 | 379.4 | 694.7 | 30.6 |
| Latin America and the Caribbean | 95.7 | 157.4 | 108.1 | 35.0 | 396.2 | 17.4 |
| Near East | 63.2 | 22.0 | 0.0 | 4.4 | 89.6 | 3.9 |
| TOTAL: | 462.9 | 848.8 | 317.0 | 646.9 | 2275.6 | 100.0 |

In the fight against world hunger and malnutrition, the U.S. Government uses food aid resources to attack the many factors contributing to food insecurity and nutritional risk. Food aid programs are designed to contribute to improved food security in many ways, with interventions affecting the three food security aspects — availability, access, and utilization. Development programs funded by dollar resources are also often focused on developmental challenges which are constraints to improved food security, and A.I.D. strives to integrate food resources with dollar resources in programs which seek to relieve those constraints.

Because there are many factors which affect food security, as we described in Chapter I, and because there are other donors who also implement programs which seek to improve food security, A.I.D. does not claim that U.S. food aid programs are the sole or direct cause of improved food security in any nation. Rather, A.I.D. seeks to direct food and dollar resources in ways which address the problems and causes associated with food insecurity. In the following pages, we describe the general characteristics of each food aid program and also present examples of the types of interventions used in each program to target aspects of food security.

A. FOOD AID PROGRAM COMPONENTS

1. P.L. 480 Title I

Title I, administered by USDA, provides for government-to-government concessional sales of agricultural commodities to developing countries for dollars on credit terms or for local currencies. The local currency sales authority has not been implemented in FY 1993 for budgeting reasons. Title I is a long-term concessional sales program with credit terms including low interest rates, repayment periods of up to 30 years, and a grace period of up to 7 years. In some countries, A.I.D. Missions work closely with USDA to implement and/or monitor USDA's Title I programs. In FY 1993, Title I programs included shipments to 26 countries around the world (including shipments of Title I-funded food to 5 countries through the Food for Progress Program).

Developing countries are eligible for assistance under Title I if they experience a shortage of foreign exchange earnings and have difficulty meeting all of their food needs through commercial channels, as determined by the Secretary of Agriculture. In providing agricultural commodities, the priority for determining whether and to what extent a country receives assistance is based upon 1) the greatest need for food, 2) whether the country is undertaking measures for economic development to improve food security and promote development, and 3) whether the country demonstrates the potential to become a commercial market for U.S. agricultural commodities.

Title I contributes to the multiple goals of the P.L. 480 program, particularly those seeking to develop and expand markets for U.S. agricultural products and to increase food availability, in several ways:

- Title I food resources themselves are designed to add to the total availability of food in recipient countries and support the development of stable, market-oriented economies that will grow to be active international trading partners in the world system.
- Sales of Title I commodities are channeled as much as possible through private markets in recipient countries, supporting the growth of a more robust private sector as the engine for economic growth.

2. P.L. 480 Title II

Under Title II, managed by A.I.D., the U.S. Government donates agricultural commodities to support emergency and non-emergency (regular) food aid programs. These programs are implemented by private voluntary organizations (PVOs), cooperative development organizations (CDOs), and by international relief agencies such as the WFP, and in emergency situations, Title II food can also be provided directly to governments. In FY 1993, Title II food was shipped to 68 countries around the world.

In many cases, food is distributed directly to individuals, as in projects such as direct relief, emergency feeding, and disaster assistance. In others, food is combined with other program elements and targeted to certain beneficiaries, such as in Maternal and Child Health (MCH), School Feeding (SF), and Food for Work (FFW) programs. In still other programs, P.L. 480 commodities are imported and sold on the local market ("monetized") providing an additional supply of food locally and generating local currencies that are then used to support local development efforts and community projects. The Title II program affects food security through a range of mechanisms, including:

- Title II FFW programs, implemented by PVOs, provide food rations in exchange for work contributions to community development and infrastructure projects, thus increasing household food access.
- Direct feeding and emergency assistance programs supported through Title II help provide a "safety net" for the poorest and most vulnerable, including refugees and displaced persons.
- Title II MCH and SF projects, managed by PVOs, provide supplementary food rations as well as primary health care services and nutrition information targeted to women and children.

U.S. GOVERNMENT INTERVENTIONS TO IMPROVE FOOD SECURITY

- Some Title II food is monetized and the monies are used to support and complement food program activities, to support small community projects or microenterprise activities, and to otherwise contribute to development efforts at a local, "grass-roots" level.

Figure 5 shows the organizations which managed P.L. 480 Title II food programs around the world in FY 1993.

| AFRICA | LATIN AMERICA AND THE CARIBBEAN |
|---|--|
| Adventist Development and Relief Agency International (ADRA) | ADRA |
| Africare | Asociacion Benefica Prisma (PRISMA) |
| Agricultural Cooperative Development International (ACDI) | CARE International |
| CARE International | CARITAS |
| Catholic Relief Services (CRS) | CRS |
| Doulos Community | FHI |
| Ethiopian Orthodox Church | Feed the Children (FTC) |
| Food for the Hungry International (FHI) | International LIFELINE (INTLIFE) |
| International Committee of the Red Cross (ICRC) | Project Concern International (PCI) |
| Save the Children Federation, Inc. (SC) | World SHARE |
| Opportunities Industrialization Centers International (OIC) | WFP |
| TechnoServ | |
| UNICEF | NEAR EAST |
| WFP | CRS |
| World Vision Relief and Development, Inc. (WVRD) | SC |
| | WFP |
| EUROPE | |
| ICRC | ASIA |
| CRS | CARE International |
| WFP | CRS |
| | WFP |

PVOs and CDOs play a central role in A.I.D.'s efforts to distribute Title II food aid. In 1993 PVOs and cooperatives received 1.2 million tons of P.L. 480 commodities, valued at more than \$526 million (including transport costs), for distribution in 38 countries around the world. This includes monetization of more than 153,000 metric tons of commodities valued at \$40.7 million (not including transport costs), representing 13 percent of the value of commodities in Title II regular programs.

PVOs who work with A.I.D. as Title II cooperating sponsors have particular responsibilities for program implementation and monitoring; beginning in FY 1993, PVOs are also specifically required to define 1) how their proposed/ongoing programs are expected to enhance food security, 2) the relationship between the PVO programs and the U.S. Agency for International Development (USAID) Mission's strategic approach in the country, and 3) a schedule for mandatory periodic impact assessments of the Title II activities.

Title II food handled by the WFP represents another mechanism through which food aid programs work to enhance food security. In 60 countries around the world, U.S. food is programmed by the WFP along with food from other donors in developmental and humanitarian activities. WFP handled 788,607 metric tons of Title II food valued at \$318 million (including transport costs) in 1993, representing 40 percent of total Title II tonnage and value. The

WFP has its own program implementation, monitoring, and reporting systems for food programs as endorsed by donors; the U.S. Government attends WFP donor meetings and actively contributes to strategy discussions and program approvals, but relies upon the WFP to implement and monitor the distribution of its Title II food program.

3. P.L. 480 Title III

The Title III program under P.L. 480 was dramatically redesigned in the 1990 legislation, providing a new all-grant program to be used in innovative ways and integrated into the overall program strategy of USAID Missions at the country level. These new Title III programs are substantively quite different from the USDA-managed Title I programs, where concessional sales are primarily a form of balance-of-payments support which increases food availability. USAID Missions put substantial effort into the design of Title III programs — particularly the identification of key policy constraints important to improved food security and the negotiation of policy conditionalities designed to remove these constraints. These “policy reform agendas” are often closely integrated with other policy reform activities supported by dollar resources. Once a Title III program has been designed and approved, and an agreement signed, USAID Missions work to assist host-country governments to design, analyze, and monitor their progress on the agreed policy reforms and to program and audit the uses of local currencies generated.

Title III resources are especially intended to benefit “least developed countries,” and specific eligibility criteria were established in Section 302 to define the “least developed countries” that may benefit from Title III. In designing and implementing Title III programs, USAID Missions are encouraged to devote at least 10 percent of the local currencies generated under the program to indigenous non-government organizations (NGOs) working on development projects in their country. Currently all Title III programs generate local currencies through commodity sales, and support policy reform agendas, demonstrating the commitment of recipient governments to policies to promote food security. Title III commodities can also be used for the development of emergency food reserves or direct feeding programs which meet the Section 302 eligibility and priority criteria.

Meeting the statutory eligibility criteria is only the first requirement for a Title III program. Beyond this, a series of other reviews must be successfully passed, similar to those for the programming and use of other A.I.D. resources. These include program prioritization, project integration, and proposal review and approval. Since 1990, a diverse and creative range of program designs and policy goals have been developed for Title III programs around the world; details on country-specific Title III programs which shipped P.L. 480 commodities in FY 1993 are provided in the country profiles in Chapter IV. In general, Title III programs utilize a wide range of interventions and policy mechanisms to help enhance food security in the host country, as illustrated by these examples:

- Title III programs are designed to add to the total availability of food in recipient countries, and they help support the development of stable, market-oriented economies whose agricultural production and marketing systems contribute to food security.
- Resources generated by Title III commodity sales are used by A.I.D. and partner governments to support sectoral and macroeconomic policy measures that improve a country's general economic context and provide incentives leading to increased incomes, employment, and local production.
- Some Title III policy reforms are specifically designed to increase food access by increasing employment, household incomes, and household purchasing power, especially through sectoral policy adjustments and liberalization of government controls on economic activities and markets.
- Local currency funds generated by Title III commodity sales support regional and local agricultural production, marketing, and research projects that seek to increase food availability and access, and these monies also support health and nutrition projects that seek to improve the nutritional status of vulnerable individuals.

- Title III programs also support policy reforms which are designed to improve access to primary health care, thus potentially improving nutritional status.

Figure 6 summarizes the program eligibility criteria for Title III as determined by legislation and A.I.D. policy, and lists the countries that were considered eligible for FY 1993 Title III resources. For FY 1993, a total of 61 countries were identified as "least developed" and thus eligible for Title III food: 35 in Africa, 16 in Asia, 3 in Europe and the Near East, and 7 in Latin America and the Caribbean. Actual Title III programs in FY 1993 included shipments of commodities to 16 countries around the world, noted with an asterisk (*) in Figure 6.

| Poverty Criterion | | Food Deficit Criterion |
|---|-----------------|--|
| Criterion used by the World Bank (IBRD) to determine eligibility for Civil Works Preference in providing IBRD financial assistance. | | Set in the 1990 legislation, a country must meet this criterion as measured by meeting ALL THREE of the following A.I.D.-defined indicators: |
| <i>Countries eligible under this "poverty criterion" for 1993 programming are listed below:</i> | | <ul style="list-style-type: none">■ Per capita consumption of less than 2,300 calories per day, with a 10 percent error margin■ Under-5 child mortality rate in excess of 100 per 1,000 live births, with a 10 percent error margin■ Inability to meet food security requirements from domestic production or imports because of a lack of foreign exchange. Foreign exchange constraint is measured by less than three months' import coverage in its foreign exchange account in spite of government attempts at sound macroeconomic policy, a context verified by the existence of an International Monetary Fund (IMF) agreement or standby or similar macro policy agreement. |
| <i>Countries eligible under this "food deficit criterion" for 1993 programming are listed below:</i> | | |
| Afghanistan | Lesotho | Bolivia (*) |
| Albania | Liberia | Cameroon |
| Bangladesh (*) | Madagascar | Gabon |
| Benin | Malawi | Guatemala |
| Bhutan | Maldives | Peru (*) |
| Burkina Faso | Mali (*) | Senegal (*) |
| Burma | Mauritania | Yemen Arab Republic |
| Burundi | Mongolia | |
| Cambodia | Mozambique (*) | |
| Central African Rep. | Nepal | |
| Chad | Nicaragua (*) | |
| China | Niger | |
| Comoro Islands | Nigeria | |
| Ethiopia (*) | Pakistan | |
| Gambia | Rwanda | |
| Ghana (*) | Sao Tome | |
| Guinea (*) | Sierra Leone | |
| Guinea- Bissau | Sri Lanka (*) | |
| Guyana (*) | Solomon Islands | |
| Egypt | Somalia | |
| Equatorial Guinea | Sudan | |
| Haiti (*) | Tanzania | |
| Honduras(*) | Togo | |
| India (*) | Uganda (*) | |
| Indonesia | Vietnam | |
| Kenya | Zaire | |
| Laos | Zambia | |

NOTE: Notwithstanding these LDC criteria, Title III assistance may not be provided if there exist other relevant summary of policy restrictions to providing aid to that country.

4. Section 416(b)

This program, authorized by Section 416(b) of the Agricultural Act of 1949 as amended, is administered by the USDA. It provides for the overseas donation of surplus agricultural commodities owned by the Commodity Credit Corporation (CCC) to developing countries and friendly nations. Section 416(b) programs in FY 1993 included shipments to 45 countries around the world including donations to the WFP for use in regular and emergency

programs. Commodities may not be acquired specifically to carry out the purposes of the program, but rather surplus commodities already owned by the CCC must be used. Agreements to provide these commodities to friendly countries may be on a government-to-government basis or with nonprofit and voluntary agencies and cooperatives eligible to receive commodities for food aid programs in the country. The cost of transporting the food from the U.S. to the border of the recipient country is usually paid by the CCC, and occasionally internal distribution costs are also paid by the CCC.

In addition to filling commodity gaps in emergency situations, Section 416(b) food is used to relieve temporary commodity shortfalls. Commodities may not be furnished to any country under this program unless the receiving country has the absorptive capacity to use the commodities effectively and efficiently. Also, the commodities furnished must not displace or interfere with commercial sales that might otherwise be made. When providing food aid under Section 416(b), not less than 10 percent of the value of the commodities may be sold in the recipient country to generate funds used to enhance the effective use of the commodities and to implement development programs.

5. Food for Progress

The Food for Progress program, which was initially authorized by the Food Security Act of 1985, is administered by the USDA. The purpose of the program is to use the food resources of the U.S. in support of countries that have made commitments to introduce or expand free enterprise elements in their agricultural economies. This program may be funded through P.L. 480 Title I appropriations or the use of resources available under Section 416(b). In the case of Section 416(b), eligible commodities in the CCC inventory may be used, or the CCC may purchase commodities for use under Food for Progress if they are not available in the CCC inventory. Commodities were shipped to 5 countries in FY 1993 under the Food for Progress program.

There are two resource constraints on the Food for Progress program. The first is that no more than 500,000 metric tons of commodities may be furnished in each fiscal year. For this fiscal year, programs with the NIS were exempted from the tonnage limitation by the Freedom Support Act of 1993. There is also a limit of \$30 million that can be spent on transportation costs associated with the delivery of commodities. Similar to other food aid programs, there are prohibitions under Food for Progress on the transshipment of commodities to countries other than those in the agreement, and steps are taken to avoid the displacement of commercial sales to the country.

B. REGULAR FOOD ASSISTANCE VS. EMERGENCY RESPONSES USING FOOD AID

While much of the U.S. Government food assistance is channelled through non-emergency "regular" programs which target chronic food insecurity, such as those implemented under Titles I, II, and III described above, a substantial portion of the U.S. food assistance each year is specifically targeted through Title II and Section 416(b) programs to the vulnerable poor at risk from transitory food insecurity caused by natural disasters, civil conflicts, and other crises. In fact, emergency food aid is the largest component of overall U.S. disaster relief in most years.

A.I.D. provides Title II resources and facilitates USDA-managed Section 416(b) commodities to PVOs, CDOs, international relief organizations, the WFP, and host-country governments for disaster and emergency relief activities. Emergency relief relies upon well-developed continuous coordination within the U.S. Government, with multilateral donors, and with host-country governments. While global attention is often attracted toward highly visible efforts to feed the starving in such countries as Somalia and the Sudan, provision of timely food aid in other areas, such as Southern Africa, averted tragedy for millions.

CHAPTER III

ASSESSING PROGRESS

A. GENERAL TRENDS IN FOOD SECURITY

Given the multidimensional nature of food security, it is difficult for a single indicator to measure a country or region's food security status. We seek different indicators to capture access, availability, and utilization, reflecting chronic and transitory food security status at the national, household, and individual levels. Many international organizations concerned with the food security and nutritional status of the world's poor have developed conceptual models of food security and selected associated statistical indicators to understand the dynamics of food insecurity and hunger. Using these resources, trend data are summarized in the following pages, using indicators such as food production, dietary energy supply, and malnutrition as measured by the prevalence of underweight children.

1. Global and Aggregate Food Availability

FAO monitors a set of seven “global food security indicators” which are used to track world food stocks and flows at an aggregate level, and to provide advance warning of impending large-scale food shortages. Figure 7 summarizes trends in these indicators over the past several years.

| | 1990-91 | 1991-92 | 1992-93 ¹ |
|--|--------------------------------------|---------|----------------------|
| Percent of World Cereal Stocks to World Cereal Consumption | 20 | 18 | 18 |
| Ratio of Five Major Exporters ² Supplies to Import Requirements/Demand | 1.22 | 1.19 | 1.20 |
| Closing Cereal Stocks as a Percentage of Total Transactions of Major Exporters | | | |
| Wheat ² | 26.7 | 24.1 | 24.2 |
| Coarse Grains ² | 19.4 | 15.7 | 21.0 |
| Rice ³ | 11.4 | 10.6 | 9.5 |
| TOTAL | 19.7 | 16.9 | 19.3 |
| | Percentage Change from Previous Year | | |
| Changes in Cereal Production in China, India and Commonwealth of Independent States (CIS) (+Georgia) | +7.2 | -8.2 | +4.6 |
| Changes in Production of Cereals in Low-Income Food-Deficit Countries (LIFDCs) | +4.3 | -1.0 | +0.1 |
| Changes in Cereal Production in LIFDCs, less China and India | +3.9 | +1.9 | -3.7 |
| | Percentage Change from Previous Year | | |
| Export Price ⁴ Movements: Wheat | -26.7 | +27.1 | - 9.3 |
| (Annual Averages): Rice | - 8.9 | + 8.6 | - 6.0 |
| Maize | - 2.8 | + 3.8 | -10.9 |

¹ Excludes Myanmar, Cambodia, European Community (EC), U.S., China, Taiwan, Thailand, S. Vietnam.

² Wheat = U.S. No. 2 Hard Winter; Maize = U.S. No. 2 Yellow; Rice = Thai, 100% milled.

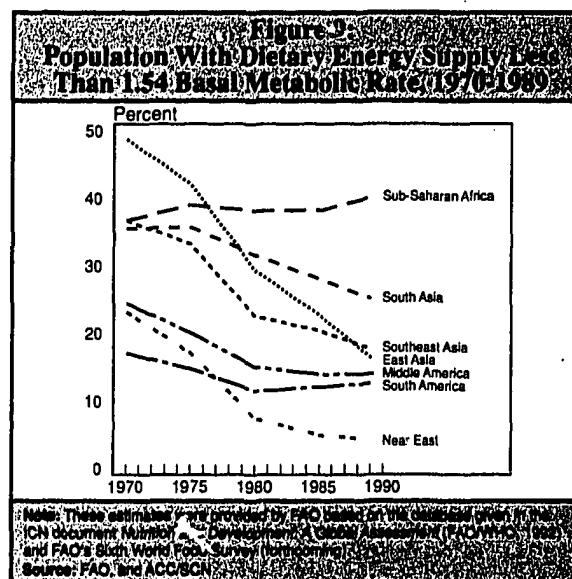
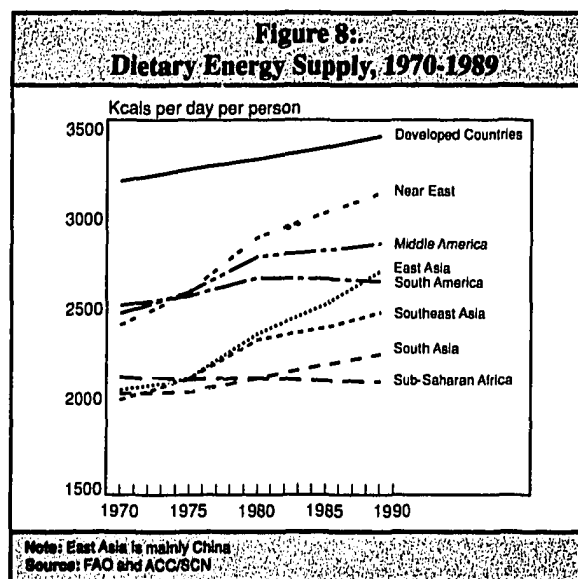
³ Percent for wheat and maize are averages of July-October; rice of January-September 1992.

⁴ Source: FAO Committee on World Food Security, April 1993.

FAO acknowledges that no single indicator can provide a reliable predictor of future change, due to the complexity of commodity markets. FAO's assessment of world food availability in 1992-1993, as evidenced by the indicators summarized above, is that on balance there appears to have been a modest improvement compared with the 1991-1992 season. The improvement is not evenly distributed, however, and FAO's judgement is that the outlook for world food security remains "finely balanced, and crucially dependent on good cereal harvests in 1993."

2. Per Capita Food Availability

As reported in Chapter I, FAO estimates that production of staple foods worldwide grew by 2.5 percent in the 1992-1993 crop season, compared to the previous year when output fell sharply, although world production remains more than 2 percent below the average production output of the early 1980s. However, food production data provides only one part of the food security equation. Estimates of national food production and imports are too aggregate to illustrate the full spectrum of food security concerns. A more useful measure is dietary energy supply (DES). Measured in calories per person per day, DES reflects the potential available food, but it is still important to remember that these per capita availability figures do not actually indicate the amount of food which was consumed by each individual. Per capita availability must not be confused with caloric intake, which can only be measured and observed directly at the individual level. Figures 8 and 9 below illustrate trends in DES, disaggregated by region, as well as trends in the proportion of the population with DES levels below the recommended metabolic level. These data sets exclude the NIS.



As shown above, the trend in per capita DES was upwards in most regions from 1970 to 1990, with the exception of Sub-Saharan Africa and South America where it was static or slightly falling from 1980 to 1990. The proportion of the population in each region with DES below recommended levels was lower in most regions, with the exceptions again of Sub-Saharan Africa and South America where the share of the population underfed was static or slightly higher from 1980 to 1989.

3. Trends in Nutritional Status

As described in Chapter I, food security is a dynamic interaction between availability, access, and utilization of food. Food security is fully achieved when supply in a country is sufficient to provide adequate food to all, when households are able to exercise effective demand and acquire that food, and when the nutritional needs of individuals within households are met. The ultimate outcome of a food-secure country or region is improved nutritional status for all of its people. Thus, in assessing progress towards food security, attention is also given to nutritional progress, which is monitored by certain international agencies using proxy nutrition variables.

The latest available data on nutritional status in developing countries is presented and analyzed in depth in the *Second Report on the World Nutrition Situation*, published in late 1992 by ACC/SCN. Using the latest available nationally representative data, nutritional trends at global and regional levels are examined in the ACC/SCN report, and detailed country profiles for 12 selected developing countries are presented.

The Global Problem. Protein-energy and micronutrient malnutrition continue to affect large numbers of people. An estimated 20 percent of the world's population consumes an inadequate amount of food, and growth failure affects one-third of the world's children. More than 40 percent of women worldwide are underweight and/or anaemic, and at least 1 billion people around the world are probably affected by one or more nutritional deficiencies.

Africa. Nutritional trends have generally deteriorated or remained static in Sub-Saharan Africa during the 1980s, in contrast with all other regions. There are indications that some select African nations with extensive community-level programs may have achieved nutritional improvement contrary to this overall trend. The 1990-1992 period marked severe famine caused by drought and war in Ethiopia, Somalia, Sudan, Mozambique, and Liberia, causing massive movements of refugees into neighboring countries. The trend in the availability of vitamin A is upwards, except in east Africa, while the trend in dietary iron supply is downwards, as it is in all other regions except the Near East and North Africa.

Asia. The nutritional status of countries in South Asia, including India and its neighbors, is estimated to be improving slowly, with an annual reduction in prevalence of underweight children of around half a percentage point. Still, the region's underweight prevalence is the highest in the world, and over half of the world's underweight children live in this region. Indications are that caloric consumption remained low throughout the 1980s, although this may have improved slightly for some vulnerable groups such as the landless poor.

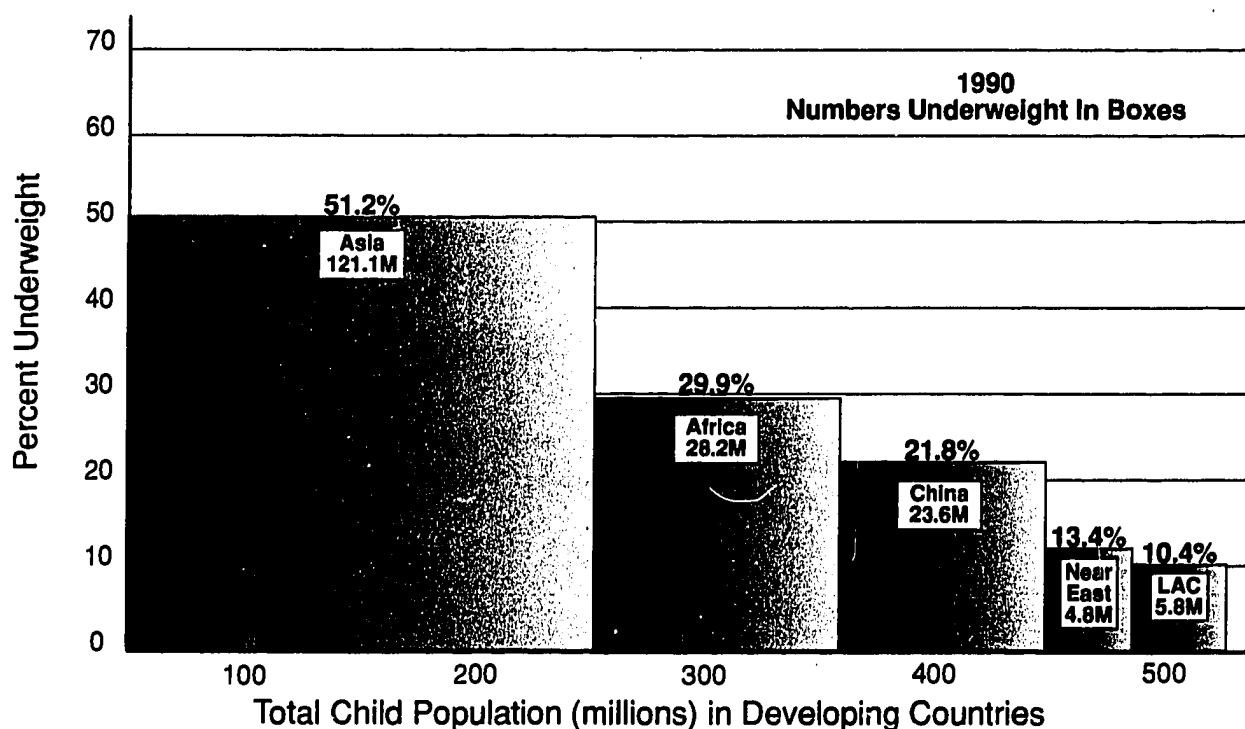
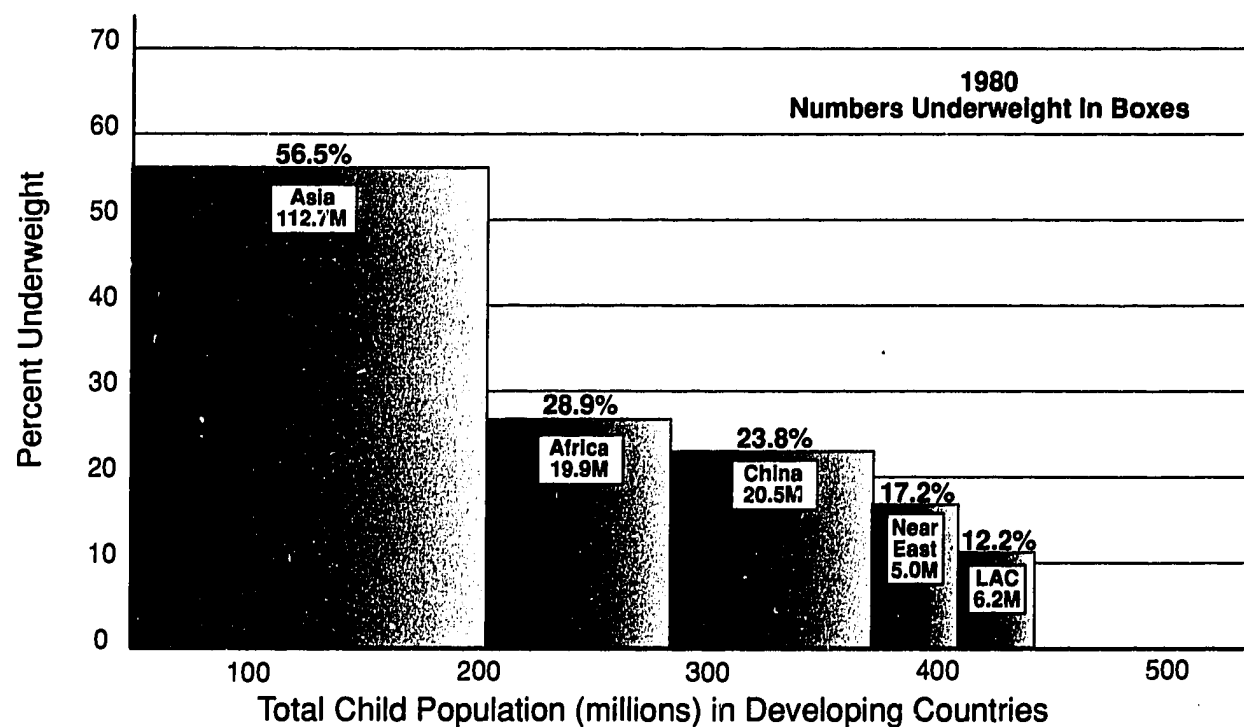
Nutrition in Southeast Asia is improving rapidly in many countries, reducing underweight prevalence by one percent annually. This success is supported both by robust economic development and by extensive health and nutrition programs at the community level. Food consumption has risen in the 1980s, as has food production (several countries in the region shifted from net food importers to exporters).

Europe and the NIS. Nutritional status of the people in the reindustrializing economies of Eastern Europe and the NIS is not analyzed in the 1992 ACC/SCN study, which focuses on a more traditional dataset of developing countries. In general, there is very little reliable time-series data available on nutrition and food security in the former Soviet States and the lower-middle-income nations of Eastern Europe. International organizations such as the World Health Organization (WHO) and UNICEF are just beginning the difficult task of launching surveys and collecting reliable field data. Qualitative observations support the sparse available data which indicate that food security problems in this region are special and distinct from those in other areas analyzed here. There is an oversupply of commodities with excessive fat content, reflected in an unhealthy high-fat average diet combined with shortages of basic vitamins, minerals, and micronutrients. Availability of more diverse foodstuffs is low, exacerbated by dysfunctional marketing systems in transitional economic crises, and eroding household purchasing power driven by unemployment and inflation threatens access to the limited market supplies which are available.

Latin America and the Caribbean (LAC). This region saw some overall improvement in nutritional indicators during the 1980s, but little change in the latter years of the decade. Reductions in underweight prevalence in certain large countries such as Brazil and Chile were fueled by improved education, lower birth rates, and direct nutrition interventions. Nutritional status in countries with these types of support systems appeared quite resilient to economic stress and volatility. The region is also notable for the wide range of country situations, from very poor nations such as Haiti and Guyana to the more developed and food-secure countries such as Chile and Argentina.

Nutritional Status of Children. The percentage of children who are underweight and malnourished fell in the 1980s, from around 38 percent in 1980 to 34 percent in 1990. This improvement is less rapid than that in the late 1970s, when the prevalence of child malnutrition dropped from 42 percent in 1975 to 38 percent in 1980. The rapid improvement in the late 1970s was just enough to offset population growth, and so the total numbers of pre-school underweight children dropped during those years, but the total is estimated to have risen again during the 1980s, from 164 million in 1980 to 184 million in 1990. Figure 10 provides a visual illustration of regional trends.

**Figure 10:
Prevalences and Numbers of Underweight Children By Region, 1980 vs. 1990**



Note: The vertical axis is the prevalence; the horizontal axis is the total child population; the area represents the number of underweight children. This figure displays relative numbers and prevalences at each time, and population growth between 1980 and 1990. Changes over time can be seen by comparing upper and lower charts.

Source: ACC/SCN Second Report on World Nutrition Situation 1992

Nutritional Status of Women. Stunting, underweight, and wasting are extensive problems in developing countries, with low body weight and thinness particularly problematic in Asia. Malnutrition in women, assessed in the 1992 ACC/SCN report for the first time, is generally in line with estimates of low birth weight; the intergenerational effects of malnourished women having small babies who grow up to be small mothers can easily be seen. Indications are that the prevalence of anaemia, already high, may be rising in South Asia and Sub-Saharan Africa. Maternal mortality rates are also feared to be increasing in Sub-Saharan Africa, in contrast to other regions where maternal death rates have been falling.

Projections of Future Trends. Using the indicator of percent of underweight children, ACC/SCN projected possible nutritional trends under several scenarios. These projections highlight continued improvement in most regions except Africa, where nutrition is projected to deteriorate. However, the rate of improvement is generally far below that which would be needed to meet internationally accepted goals, such as those adopted at the 1990 World Summit for Children or the 1992 International Conference on Nutrition. For South Asia, where the underweight prevalence is by far the highest in the world, improvement is projected to continue, but at a rate that would require many decades to solve the problem. Southeast Asia, although improving more rapidly, would still need an accelerated rate of improvement to meet the international goals. If countries in Latin America could regain the rate of improvement they had in the late 1970s, they could possibly meet their goals by the year 2000.

4. Progress at the Country Level

The 1991 and 1992 *World Food Day Reports* included a food security index which attempted to rank countries according to food security status within the framework of national food self-reliance and household food access, using quantitative statistical analyses to assemble a composite index based on data averaged over a three-year period. These statistical analyses, and the resultant composite index, illustrated relative food security status among nations.

For 1993, the same methodology and data sources were used to generate a dataset spanning 66 countries which are recipients of U.S. food assistance. (There are other countries which receive U.S. food aid but for whom data on the five indicators is unreliable or missing entirely; in those cases, rather than use unreliable data, the country was dropped from this year's dataset.) While each indicator touches upon a different element or determinant of food security, we can look for trends in the indicator sets for each country over time, watching for clear and distinct movements towards a more positive (or more negative) food security status. And because the numerical value for each indicator each year is actually a moving three-year average, "data spikes" or year-to-year variations are evened out to an extent, allowing us to discern trends from 1989 through 1991. A more detailed description of methodology and data issues involved in the calculation and presentation of these data is presented in Annex D.

The indicators under review are per capita income (GNP), per capita caloric availability, child mortality, per capita foreign exchange earnings, and domestic food production. Figure 11 illustrates the trends in these five indicators for each country included, identifying in each case a clear positive trend (+), a clear negative trend (-), or an ambiguous or unclear trend (●). Note that for one of the indicators, *under-five mortality rate*, a positive trend is signified by a decrease in the value of the indicator. Using this trend information, we can group countries based on the movement of their underlying indicators during the past several years.

Clear progress: Countries where four or more indicators show a distinct and consistent trend in a positive direction. Nine countries are in this group — Bangladesh, Pakistan, and the Philippines in Asia; Benin and Togo in Africa; Colombia and Mexico in Latin America; and Morocco and Tunisia in the Near East.

Some progress: Countries where three out of five indicators show a distinct and consistent positive trend. We find 21 countries in this group, distributed by region as follows:

| | |
|-----------------------------------|---|
| 8 in Africa: | Botswana, Cape Verde, Congo, Gambia, Malawi, Mali, Mauritius, Swaziland |
| 4 in Asia: | India, Indonesia, Nepal, Sri Lanka |
| 1 in Europe/NIS: | Poland |
| 6 in Latin America/ Caribbean: | Bolivia, Brazil, Costa Rica, Jamaica, Paraguay, Suriname |
| 2 in the Near East: | Egypt, Yemen |

Figure 11: Trends in Selected Food Security Indicators

Symbol Legend: — Downward Trend + Upward Trend • No Sustained Trend

| COUNTRY | INDICATOR TRENDS | | | | |
|--------------------------|------------------------|---------------------------------|---------------------------|--------------------------------------|--------------------------------|
| | GNP Per Capita (ATLAS) | Per Capita Calorie Availability | Under-Five Mortality Rate | Foreign Exchange Earnings Per Capita | Domestic Food Prodn Per Capita |
| BANGLADESH | + | + | + | + | + |
| BENIN | + | + | + | + | + |
| COLOMBIA | + | • | + | + | + |
| MEXICO | + | — | + | + | + |
| MOROCCO | + | + | + | + | + |
| PAKISTAN | + | + | + | + | • |
| PHILIPPINES | + | + | + | + | • |
| TOGO | + | + | + | + | • |
| TUNISIA | + | + | + | + | • |
| BOLIVIA | + | — | + | + | • |
| BOTSWANA | + | — | + | + | • |
| BRAZIL | + | + | + | • | — |
| CAPE VERDE | + | + | + | • | — |
| CONGO | + | — | + | + | — |
| COSTA RICA | + | • | + | + | • |
| EGYPT | — | — | + | + | + |
| THE GAMBIA | + | — | + | + | + |
| INDIA | • | + | + | + | • |
| INDONESIA | + | • | + | + | • |
| JAMAICA | + | — | + | + | • |
| MALAWI | + | • | + | + | — |
| MALI | + | • | + | + | • |
| MAURITIUS | + | • | + | + | — |
| NEPAL | + | + | + | • | • |
| PARAGUAY | + | — | + | + | • |
| POLAND | — | — | + | + | + |
| SRI LANKA | + | • | + | + | • |
| SURINAME | + | • | + | + | — |
| SWAZILAND | + | • | + | + | • |
| YEMEN | — | — | + | + | — |
| BULGARIA | — | • | + | — | + |
| BURKINA FASO | + | — | + | • | • |
| CENTRAL AFRICAN REPUBLIC | + | • | + | • | — |
| COMORO ISLANDS | + | — | — | + | — |
| DOMINICAN REPUBLIC | + | • | + | • | — |
| ECUADOR | — | • | + | + | • |
| EL SALVADOR | + | • | • | + | • |
| ETHIOPIA | • | • | + | • | — |
| GHANA | • | — | + | • | — |
| GUATEMALA | • | + | • | + | — |
| GUINEA | + | • | + | • | • |
| GUINEA-BISSAU | + | — | — | • | • |
| GUYANA | • | — | • | • | • |
| HONDURAS | — | + | + | — | • |
| KENYA | • | • | + | — | — |
| LESOTHO | + | — | • | + | • |
| MADAGASCAR | — | • | + | + | — |
| MAURITANIA | + | • | + | • | — |
| MOZAMBIQUE | — | • | • | + | • |
| NICARAGUA | — | — | + | + | — |
| NIGER | • | • | + | — | — |
| NIGERIA | — | • | • | + | + |
| PANAMA | • | — | + | • | • |
| PERU | • | — | + | + | — |
| RWANDA | • | + | + | — | • |
| SAO TOME & PRINCIPE | — | — | + | — | + |
| SENEGAL | + | • | • | + | — |
| SIERRA LEONE | • | + | + | • | — |
| TANZANIA | — | • | • | • | — |
| EX-YUGOSLAVIA | + | — | + | • | • |
| ZAMBIA | + | • | • | • | — |
| HAITI | + | — | + | — | — |
| UGANDA | — | + | • | — | — |
| BURUNDI | — | — | • | — | — |
| JORDAN | — | — | + | — | — |
| SUDAN | — | — | + | — | — |

Source: Prepared by A.I.D.'s Bureau of Food and Humanitarian Assistance based on data and trend analyses provided by the Economic and Social Data Service, a unit of A.I.D.'s Policy Directorate.

No clear movement: In 31 countries, almost half of the total number presented in Figure 11, there is no clear or distinct trend or progress in food security. The movement of the five indicators tracked over the past three years is inconsistent and or ambiguous in these 31 countries, regionally distributed as follows: 20 in Africa, none in Asia, 2 in Europe/NIS, 9 in Latin America/Caribbean, and none in the Near East.

Some deterioration: Countries where three out of five indicators show a distinct and consistent negative trend. Two countries fall into this category: Haiti and Uganda.

Clear deterioration: Countries where four or more indicators show a distinct and consistent negative trend. Two countries in Africa, Burundi and Sudan, have shown this consistent negative trend in food security parameters over the past three years, as has one country in the Near East, Jordan.

In addition to the country-level analysis presented above, we have developed brief profiles of each country receiving U.S. food assistance, presented in Chapter IV.

B. USING FOOD ASSISTANCE IN EMERGENCIES

1. Emergencies and Food Security

In many of the countries where the U.S. provides food aid and development assistance, sufficient social and economic stability exist to support social and economic programs as they work to build sustainable broad-based development. Approximately 52 million people directly benefit from U.S. food aid provided under the more than 100 regular food aid projects underway worldwide. In these countries we are working to enhance and build food security.

In other nations, however, the primary goal is to protect the fragile and threatened food security of the people affected by emergencies. In addition to natural disasters such as the recurring floods in Bangladesh and droughts in Sub-Saharan Africa, there are many devastating emergencies disrupting the world in places such as southern Sudan, Somalia, Mozambique, the Transcaucasus countries, and Bosnia-Herzegovina, where hunger and starvation are man-made phenomena. In these situations, the challenge of famine mitigation is complicated by the manipulative actions of warring factions who increasingly in recent years use food and food aid as a weapon. The obligation to provide humanitarian relief even in the midst of war is increasingly accepted.

2. Emergency and Disaster Response in 1993

Over the past decade there has been an alarming increase in the number of emergency interventions undertaken by international relief agencies in response to natural disasters and civil strife. In 1990, A.I.D. responded to 53 new disasters affecting 52 million people. In 1991 this number climbed to 65 disasters, in 1992 there were 66, and in the first nine months of FY 1993, there were 46 disaster declarations. A.I.D. traditionally provides P.L. 480 Title II resources and provides USDA Section 416(b) commodities for disaster and relief activities through PVOs, the WFP, and host governments.

These resources help prevent or mitigate famine and alleviate suffering in areas affected by natural disasters, such as the 1992-1993 Southern African drought emergency; in regions disrupted by civil war and ethnic strife, such as Somalia and the former Yugoslavia; and in countries where prolonged civil disturbances generate increasing refugee and internally displaced populations, such as Afghanistan, Angola, Mozambique, and Liberia.

Disaster and emergency relief operations are extremely difficult to plan and undertake, and in politically-created emergencies, there are severe constraints to our ability to anticipate conflict and intervene effectively. In some cases, politically sensitive situations may be most effectively dealt with through the U.N., and thus the U.S. frequently channels its food aid through the WFP.

In other cases, collaboration between civilian relief agencies and U.N. military authorities is used to facilitate the effective delivery of essential food and non-food aid to war-torn areas. Operation Provide Relief and Operation Restore Hope in Somalia are examples of military-civilian involvements in humanitarian interventions.

Within the U.S. Government, A.I.D. has the primary responsibility for programming food aid for emergencies, but USDA often supports A.I.D.'s efforts by providing Section 416(b) food resources to supplement Title II commodities. In 1992, slightly more than 1 million metric tons of food was provided through Section 416(b), virtually all of it for emergency programs. In 1993, the volume of Section 416(b) food aid shipped to Sub-Saharan Africa alone was approximately 585,000 metric tons.

a. Southern Africa

Early warning systems and effective coordination between international agencies allowed A.I.D. to successfully respond to massive drought in Southern Africa that threatened 18 million people with starvation. Zimbabwe, Namibia, Botswana, Lesotho, Zambia, Swaziland, and Malawi were all heavily affected by the failure of the 1991-1992 rainy season, as were Angola and Mozambique. Cereal crop losses were 50 to 60 percent of average production. Thousands of livestock died or were sold by farmers who lacked the water and grazing forage necessary to keep them and who saw market prices plummeting as others facing the same situation began selling off their herds. Thousands of people employed in the region's substantial agro-processing industries also suffered, thus disrupting urban and rural areas.

The rains came late in the 1992-1993 growing season, and the drought has now ended in most of the region, with improved rainfall levels over last year and crops expected to be more abundant, albeit still below average. Pockets of dry areas remain in Namibia, Botswana and Lesotho. Angola and Mozambique continue to experience a drought, but this is seriously exacerbated by civil strife. Prospects for Mozambique have improved as the decline in hostilities over 1993 is allowing greater access by relief organizations to regions where hunger is prevalent. The situation in Angola has become even more serious due to resumed fighting.

Overall, many of the region's people are still vulnerable and will require relief assistance for the duration of 1993 and early 1994. Emergency Title II food programs in the region for FY 1993 will total approximately 122,000 metric tons of U.S. food commodities, valued at more than \$50 million, in addition to resources provided by other coordinating donors through Section 416(b). As we reported in the 1992 *World Food Day Report*, the international response was both timely and well-coordinated, and the U.S. was at the forefront of donor response from the very beginning, demonstrating that massive loss of life can indeed be averted by early, adequate response and effective coordination.

b. The Horn of Africa: Sudan, Ethiopia, and Somalia

Certainly one of the most publicized emergencies of 1993 has been the ongoing civil war and resultant famine in Somalia. The virtual collapse of domestic agricultural production due to drought and civil strife, and continued disruption of food supply lines by bandits resulted in a minimum of 300,000 famine-related deaths in 1992; the political situation continued to deteriorate into 1993. Order has been restored to distribution systems for food aid, through the joint military-civilian interventions supervised by U.S. Government armed forces and the U.N. Crops have been harvested and the orderly phase-out of relief feeding operations has been completed in most areas of the country. Civil strife continues in Mogadishu. Normally Somalia is a net importer of food without the resources and capacity to grow sufficient food to feed the entire population. A total of 180,367 metric tons of U.S. food valued at \$76.4 million was shipped to Somalia in FY 1993, primarily through PVOs, the WFP, and the ICRC.

Ethiopia and Eritrea, currently emerging from prolonged civil strife, remain fragile while new governments are established and development programs begin anew. Food aid has been required by returnees from settlement areas, displaced persons, and demobilized soldiers and their families. Ethiopia harvested a bumper crop in 1992-1993, but severe food shortages still persist in selected and predominantly pastoral areas damaged by prolonged drought and livestock losses. Ethiopia received 108,389 metric tons of U.S. emergency food in FY 1993 valued at more than \$49.6 million.

Sudan faces multiple emergencies: ethnic fighting among and within factions, drought, life-threatening disease in the south, and locusts in the east. The U.S. strategy in Sudan has been to channel resources to war and drought-affected victims — displaced persons and refugees, especially in the south. In addition to commodities, U.S. assistance has included expanded airlift capacity and support to the critical work of PVOs, the U.N.'s Operation LIFELINE Sudan, and the ICRC. In early 1993, after the Sudanese Government's decision to allow greater access

to certain regions, donors identified several regions with very serious famine conditions. The U.S. led the response by programming \$97.9 million to Sudan in FY 1993; \$52 million in food aid (including more than 87,000 metric tons of food), and \$45.9 million in non-food aid.

c. Liberia

A coalition of West African countries under the leadership of the Economic Organization of West African States (ECOWAS) is working with international donors, primarily the U.S., to halt starvation and suffering brought about in Liberia and neighboring countries after the total collapse of Liberia's economic and social systems during the ongoing civil war. The U.S. has provided emergency food assistance since Liberia's civil war began in 1990: 132,700 metric tons in FY 1991 (valued at \$76 million); 89,000 metric tons in FY 1992 (valued at \$52 million); and 106,773 metric tons in FY 1993 (valued at \$50.6 million). U.S. food-supported emergency activities in 1993 also included displaced persons in Sierra Leone who have received 11,000 metric tons of food valued at \$6.01 million.

d. Former Yugoslavia

With the fragmentation of what was once Yugoslavia, communities of Croat, Muslim, and Serb peoples have found themselves victims of a deadly ethnic war in which hundreds of thousands of people have been driven from their homes in "ethnic cleansing" and thousands more have fled in search of food and safety. The political leaders of the warring factions continue to resist a brokered peace, and until a lasting agreement is reached, international relief organizations struggle to provide food and medical supplies. War has devastated agriculture and food production, and despite a good grain crop in 1991-1992, many parts of the former federation were threatened in early 1992 with famine and poverty because fighting disrupted international distribution and external trade; by June 1992 food reserves were inadequate and starvation had begun. Now, more than 15 months later, thousands more people have been killed and maimed, and the starvation and suffering continue. U.S. emergency assistance in FY 1993 included 186,019 metric tons of U.S. food valued at \$100.7 million, channelled through the Red Cross, Catholic Relief Services, and other international agencies such as the WFP.

e. NIS

Ethnic conflicts in the NIS have especially impacted on the Transcaucasus (Armenia, Azerbaijan and Georgia) and the Central Republic of Tajikistan. One million Armenians, 750,000 Azerbaijanians and 600,000 Georgians lack access to food due to civil disorder, inflation and economic chaos. Over 750,000 persons in Tajikistan are displaced or unable to secure food. Food for Progress programs have provided over 300,000 metric tons of U.S. food to this region.

3. Lessons Learned

Early Intervention. Famine occurs because of many factors — political, environmental, economic, and social — and early intervention is the key to mitigating this tragic chain. We can view early intervention in two ways, as characterized by the IFPRI Director-General recently in testimony before the U.S. Congress: intervention early and massive enough to prevent a famine as occurred in Southern Africa under U.S. leadership in 1992, and intervention in the early stages aimed at minimizing the damage.

Coordination. An evaluation of U.S. response to the African famines of the 1980s noted that successful emergency food distribution is most often implemented by PVOs and international agencies, working through and with the private sector and local and regional governments when possible. Recipient governments are effective in coordinating aid, but most suffer from limited resources. Coordination between donors is essential, and is most effective when initiated at the outset through joint needs identification and assessment.

Mechanisms. When private sector markets are functioning, channeling food through them is preferred to direct distribution: the burden on public sector systems is eased, market channels and logistical systems are strengthened, and displacement of families is minimized as the supplies available in marketplaces are supported by food aid commodities. Successful intervention during the 1992-1993 Southern African drought depended on delivering a major part of food aid through the commercial market system.

CHAPTER IV COUNTRY PROFILES

In this chapter, brief summaries are presented of each country receiving U.S. food assistance. Some countries receive development program dollar assistance from the U.S. in addition to food, while other countries receive only food aid (often through USDA programs). The profiles on the countries receiving food through USDA or A.I.D.-managed programs are organized by A.I.D. regions. Other countries receive U.S. food only through donations to the WFP. For those countries, where USDA and A.I.D. do not directly manage the food programs but rather rely upon the WFP program implementation and monitoring systems, short country profiles were developed and they are listed separately at the end of this chapter.

Each country profile summarizes the development context and briefly identifies the food security constraints facing the country. Then, the U.S. Government food assistance activities in that country during fiscal year 1993 are described in a narrative summary. Additional details on the food aid activities in each country, such as volume and value of commodities shipped, Title II cooperating sponsors, and so forth, are presented in the FY 1993 Food Aid Program Data Tables in Annex C. New Title II guidelines and expanded Title III program monitoring systems are being established which will generate data on the achievements and impact of food aid programs as well as potentially offer information on the linkages between those programs, their outcomes and impacts, and changes in that country. Although these data are not yet available across all countries and programs, narrative information on FY 1993 food aid program impacts is provided for countries where it is available. For the 16 countries receiving Title III program shipments this year, summary information is specifically included on the policy reforms supported by these Title III resources and the achievements to date with regard to those policy reforms. These achievements represent the intermediate outputs of strategic Title III efforts to develop more food-secure economic environments, and as such are important elements in assessing progress.

U.S. food aid is a development resource which does not function in isolation, but rather is one element in a portfolio which also includes substantial dollar resources used to fund activities such as technical assistance, training, budget support, and support for policy reform. As a strategic focus, A.I.D. places a strong emphasis on the integration of food aid resources with dollar resources when planning and implementing in-country programs. Therefore, each country profile also provides illustrative examples of some of the dollar-funded program activities related to efforts to enhance food security, providing information such as the strategic objectives of those in-country programs, their inputs and expected outcomes, and resource allocations. The information presented in each country profile varies, depending on regional and country strategies and on data available.

Presenting this data on dollar-funded development resources does not imply that the explicit goal or purpose of those activities is to enhance food security, nor does A.I.D. measure the success of those programs with food security indicators. Many A.I.D. country development programs do not explicitly list food security as a goal or objective. However, the nature of food security is such that food availability, access, and utilization can be positively affected by many different types of projects and programs, and it is important to understand U.S. food aid programs in the larger context of integrated development efforts. Food availability can be improved through diverse interventions such as programs to increase domestic food production through improved cereal varieties, improved marketing facilities such as storage silos, and incentives for producers through price liberalization. Household income and household food access can be increased through mechanisms as diverse as new employment opportunities in microenterprises or investment in tree crop production. Utilization of food, especially by infants and children, which is a primary food security concern, is strongly affected by nutrition education for mothers. Interventions which help improve access to clean water and good sanitation facilities increase utilization by decreasing disease.

In reviewing each country profile it is also important to remember that U.S. food aid, and U.S. dollar-funded development programs, operate within a complex developmental context in which other donors, national government policies, and exogenous socioeconomic factors all feed into the dynamic process of affecting food security. U.S. food assistance is one part of that dynamic process.

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A. AFRICA

There are vast differences among the over 40 African countries south of the Sahara which profoundly impact food security. Some of these differences include: their natural resource endowments, their relative openness and stability of political systems, the level of economic development in each nation, and their levels of health and education, to name just a few. However, all Sub-Saharan Africa countries face food security problems of varying degrees.

A.I.D. has chosen to focus development programs in those countries where there is greatest potential for long-term development. This means that a majority of dollar resources are focused in 12 to 15 African countries. In this subset of countries, A.I.D. takes responsibility for the development impacts of its dollar and food aid programs. All seven Title III programs in Africa are in the focus countries and completely integrated with dollar programming objectives.

Development impacts of joint dollar and food aid programs which we are now able to measure include: increases in agriculture production and improvements in agricultural marketing which result in increased farmer incomes, improvements in natural resource management which will lead to sustainable agricultural production, improvements in child health and education, as well as decreases in human fertility. Each of these are necessary — though not necessarily sufficient — components of increased food security.

In the balance of African countries, the non-focus countries, the U.S. Government sponsors two types of programming: 1) in those where there is some current potential for development, A.I.D. supports small development programs and PVO and WFP P.L. 480 Title II regular programs; and 2) in those where development is not possible in the short term due to political instability, the U.S. Government sponsors only emergency programs — both food aid and dollars. This list of emergency-only countries currently includes Angola, Liberia, Somalia, Sudan and Zaire.

The country profiles in this section are arranged as follows. First, the focus countries with substantial A.I.D. programs are presented alphabetically — those with the greatest potential for long-term development. These descriptions are then followed by profiles of countries, in alphabetical order, with smaller A.I.D. dollar-funded programs — those with some current potential for development. African countries which receive food aid only through the WFP are listed in Section G, regardless of whether the A.I.D. program in-country is large or small. It is important to notice that not all focus countries in Africa have very large food aid programs, although seven of them do have Title III programs, for which details are provided below.

BENIN Benin is in transition from a centrally controlled economy to a market system. The country is small with most of its workforce in agriculture and a small industrial sector, and some employment in trade to neighboring countries. The government's efforts to reform macroeconomic and sectoral policies receive substantial support from international donors, including substantial policy reform-based budget support from A.I.D.

Food Security Issues: Despite a fairly robust economy that is responding well to reforms, Benin has a relatively high child mortality rate. Recent reforms have increased incomes for cotton producing areas, which in turn increases household food access in the medium term. Palm oil producing areas have lost income due to increasingly unfavorable weather conditions. However, food security indicators for Benin have shown clear positive progress over the past several years.

Food Aid Program: Section 416(b) commodities are provided in support of WFP emergency and regular feeding programs. Title II programs implemented by the WFP and PVOs include MCH and child survival activities.

Related Dollar-Funded Programs: The dollar-financed development program focuses largely on improved educational systems nationwide which can eventually help improve incomes.

ETHIOPIA After 17 years of civil war, repeated droughts, and an influx of refugees from neighboring civil wars, Ethiopia remains one of the poorest countries in the world. GNP is stagnant at approximately \$120 per capita, and a major reconstruction effort is required to initiate economic growth. Agriculture is the dominant sector, but it suffers from low productivity and poor infrastructure.

Food Security Issues: Food security constraints are severe in all aspects; although Ethiopia is rich in fertile land, harvest failures are common due to drought. Soil erosion due to poor farming practices, and use of crop residues and forests for fuel, have reduced soil fertility. Livestock overgrazing contributed to the decline of agricultural production, which dropped by an average of 1.4 percent per year in the 1980s. Extreme foreign exchange scarcity has increased dependence on food aid, which rose eightfold. Per capita income fell 1.6 percent per year on average in the 1980s, and daily availability in 1990 was only 73 percent of requirements, down from 77 percent in 1965.

Food Aid Program: Title II programs implemented by the WFP and PVOs seek to meet immediate food needs of the vulnerable poor and landless due to recurrent droughts, through both emergency feeding and regular programs including MCH, FFW, and Child Feeding. FFW activities are believed to have reduced soil erosion and runoff and increased the use of low-cost conservation techniques to build sustainable agrosystems. World Vision Relief and Development, Inc. (WVRD) reported that under its FFW program employment for the rural unemployed and underemployed was provided and income was increased. Additionally, WVRD stated that, as a result of its FFW program, women's income and access to food resources increased, enabling them to add to the household reserve and improved food security. Title II food is also monetized to support community development and rehabilitation projects through PVOs. Section 416(b) commodities are also donated.

The three-year Title III program covers FY 1992-1994 and provides up to \$102 million in commodities including transport. The program supports key economic policy and organizational changes needed to move from dependence on humanitarian relief and food aid to sustainable domestic food security. The program has three components: support for movement from generalized food subsidies to a targeted food safety net; support for private sector involvement in a new economy; and support for short-term expansion of industrial capacity utilization to address an urgent need for increasing employment to stabilize post-war Ethiopia.

Title III program achievements to date include elimination of government controls affecting agricultural prices and farmer and trader activities. Nine large state-owned corporations were broken into 98 smaller enterprises with management autonomy and profit responsibility, in anticipation of rationalization and eventual privatization. The government parastatal which formerly dominated wholesale textile distribution has been stripped of its regulated monopoly power, and individual factories are now allowed to distribute their own products. General subsidies on wheat have been eliminated in favor of the establishment of a targeted food safety net.

Related Dollar-Funded Programs: Development programs seek to enhance food security through encouraging domestic production — by increasing the supply and distribution of fertilizer, improving rural transportation, and improving agricultural marketing policies. Marketing reforms and imports of raw materials for agricultural processing seek to enhance purchasing power through increased incomes from employment, and sectoral reforms affecting processing may reduce prices for processed food. Privatization of fertilizer trade could also provide opportunities for employment and increased incomes.

GHANA Ghana has made progress in reversing two decades of economic decline, but significant social problems remain: high rates of illiteracy, mortality, and fertility. Further economic progress requires improvement in human resource productivity and diversified export development. Ghana has recently increased its exports of cocoa and gold despite volatile world prices, and production and marketing of non-traditional exports have risen as well.

Food Security Issues: Ghana experienced a protracted period of drought, widespread bush fires, and crises in food availability in the early 1980s. And, although there have been relative increases in food production since then, the agricultural sector has been constrained by low-productivity technologies and dysfunctional market infrastructure which inhibit improved food availability and access. Potential for increased high-value agricultural production and exports has historically not been fully exploited, and thus rural incomes stayed low in relative terms. Per capita caloric availability is estimated as 93 percent of requirements, up from 78 percent in 1985 but still inadequate.

Food Aid Program: Title II food commodities are used by the WFP and PVOs in regular feeding programs, including MCH, FFW, and general relief activities. ADRA/Ghana's health program assists selected groups located within ten regions of the country to improve their health status through an integrated approach comprising water, sanitation, and maternal and child health. Out of 336 malnourished children, 196 (58.3 percent) gained weight and 40 (41.7 percent) did not have any improvement in weight. The resulting target was just below the actual target (65 percent) for weight gain of malnourished children. It should also be noted that some food is monetized to

support training centers serving disadvantaged youth. Section 416(b) food is used by the WFP for both regular and emergency relief programs.

Ghana's Title III program is a three-year program approved in FY 1992-1994 for a total of \$30 million in rice (including transport costs). The program objective is to promote increased agricultural marketing, particularly in export crops, and it supports policy reforms to restructure government expenditures on infrastructure, including improved rural roads and maintenance, and to reorient government entities to facilitate production and export promotion rather than business regulation. The Title III-supported rehabilitation and refurbishment of rural feeder roads has resulted in increased market access in some of the poorest rural areas in Ghana. This feeder road rehabilitation is reducing the domestic resource cost of export crops, reducing the margin between farmgate and port/marketplace and thus making Ghana's specialty export crops more competitive and profitable when sold overseas. The government is refocusing budgetary and management resources to help ensure the sustainability of these gains, a realignment of resources on infrastructure which is very compatible with long-term development. In addition to rural roads, Title III resources are supporting the Ghana Export Promotion Council in a strategic refocus on serving businesses.

Related Dollar-Funded Programs: Efforts to decrease marketing costs through improved feeder roads have reduced losses of some agricultural products (sorghum and millet). Family planning efforts in the form of increased distribution of contraceptives through private and public health services have increased contraceptive use from 12.8 percent in 1988-1989 to 18 percent in 1992. Improved transportation systems are expected to improve incomes through increased exports. A.I.D. is assisting in the development of a local-level food and nutrition monitoring system in conjunction with an ongoing agriculture/nutrition linkages project.

GUINEA Guinea has been very dependent on bauxite mining with limited focus on other necessary aspects of development. Reforms are slowly improving the situation as Guinea seeks to achieve increased literacy, reduced population growth, adequate infrastructure, and decentralized public and private management. A.I.D.'s strategy in Guinea is based on the assessment that agricultural development is most constrained by inefficient markets, as the country has rich potential in that sector. Increases in the output of key agricultural products since market liberalization began in 1985 support the conclusion that domestic food supply is responsive to improved market conditions.

Food Security Issues: Food availability is low in Guinea, and the generally poor infrastructure and low income levels also cause access problems throughout non-maritime areas. Middle, upper and forest areas of Guinea all have infrastructure problems, but all but the forest areas have recently improved food production. The forest areas have suffered from drought and from an influx of 500,000 refugees.

Food Aid Program: Title II commodities are used by the WFP in humanitarian feeding programs. Guinea's Title III \$30 million program is a multiyear effort (FY 1992-1994) which provides rice to reduce the food deficit, contributing positively to the balance-of-payments and freeing scarce foreign exchange for other food or productive imports. The program supports policy reforms in areas such as market liberalization and land tenure. Establishment of a counterpart fund management system has improved the transparency and rigor with which local currencies are managed and used in efforts to improve resource management in watersheds and strengthen the rural road system. Previous government interventions in setting prices for rice have been eliminated, allowing full and open market competition. Adoption of a land tenure code was a very important first step in the process of expanding land registration and developing viable markets for real property with incentives for increased investment and efficient use of agricultural lands.

Related Dollar-Funded Programs: Increased production of maize and peanuts is due to increases in planted areas stimulated by improved government policy and incentives for agriculture. Efforts to improve agricultural marketing have reduced transportation tariffs and decreased the travel time between markets.

MADAGASCAR Madagascar has an enormous natural resource endowment, a high population growth rate, low per capita income, and a very unequal income distribution. Recent political problems in moving to democracy have hindered an economic recovery centered on export-oriented manufacturing.

Food Security Issues: Widespread poverty exists, with most agricultural outputs devoted to exports (vanilla, coffee, and cloves), which leaves limited access to and production of rice, the country's main staple. Pressures from both the international community and within Madagascar to preserve its unique natural resources are also limiting agricultural production.

Food Aid Program: Title II commodities support emergency food programs implemented by WFP as well as regular programs managed by CRS.

Related Dollar-Funded Programs: Diversified plantings and expanded off-season crops may increase total food production. Dissemination of high-yielding rice varieties and improved production techniques to small farmers is aimed at increased rice availability. Export crop production, especially non-traditional crops, is being encouraged to improve incomes. As part of a population project, mothers are taught to use oral rehydration therapy to help children recover faster from diarrheal disease.

MALI Mali's economic base is fragile; only one-quarter of the land is arable and that is dependent on adequate rainfall. Wide-ranging structural adjustment measures since 1986 have started moving Mali towards a market economy from a state-dominated economy. Despite recent political changes the adjustment is on-track, albeit slow.

Food Security Issues: Successful liberalization of the cereal markets including freeing the prices of coarse grains has stabilized producer and consumer prices and improved access to food through market systems. Recent increases in rice production are directly due to this liberalization, as is the higher volume of grain marketed. However, large seasonal variations still afflict certain regions and rainfall still determines overall availability.

Food Aid Program: Title II food is provided through WVRD programs including Child Survival, FFW, and direct distribution, which seek to provide income transfers and nutritional supplements to needy families in the remote desert of northern Mali. Monitoring shows reduced malnutrition in target children, and increased child vaccination coverage and post-natal health consultations for mothers. Mali's Title III \$9 million program is a multiyear effort (FY 1994-1996). Title III commodities support the last of a series of sector reforms that achieved substantial production and income gains through market liberalization. The grain markets in Mali, previously controlled through extremely rigid parastatals that discouraged production and produced inefficient marketing systems, are now more active and more efficient as private traders expand their involvement in local and regional grain trading, thus increasing the availability of grain across the country throughout the season. A market information system developed and implemented through local currencies and technical assistance has helped develop a more sophisticated and flexible market response to changing supply and demand in different regions and districts, while an improved early warning system helps identify food security crises. Title III also supported policy reforms including the elimination of large national grain stocks and the establishment and refinement of open bidding systems for grain sale and procurement.

Related Dollar-Funded Programs: Improved sorghum/millet varieties in certain regions are increasing production. Income of livestock owners, transporters and traders are benefitting from new export rules allowing more profit potential. Cotton producers are receiving more for their product due to privatization of cotton transport. Pilot communities have increased their incomes through local control and maintenance of forest resources. All prices have been liberalized through policy reform, thus providing clearer signals to producers. Policy reform has stabilized consumer prices; for example, intra-annual grain price variation dropped from an average of 11 percent in the 1980s to 6.4 percent in 1992. Integrated nutrition and health messages are reducing malnutrition in some of the more remote and economically depressed areas. Diarrheal disease is also being attacked by training mothers to use oral rehydration salts.

MOZAMBIQUE Starting with a poor physical and social infrastructure at independence, combined with centralized economic planning and extensive civil war, Mozambique now faces one of the hardest development challenges in Africa. A recent peace accord with the rebels may finally allow full realization of the benefits from a structural adjustment program, which include market liberalization and fiscal and foreign exchange reforms.

Food Security Issues: Half of all households cannot meet their daily food requirements, resulting in some of the highest infant mortality and acute malnutrition rates in Africa. The recent drought only exacerbated an already critical problem. Given the insurgents' control of major areas of the country and a widespread destruction of

physical infrastructure caused by a decade and a half of civil war, the government was incapable of distributing food on a timely basis. In rural areas, extremely small farm size and a lack of access to markets for cash crops hinders household food security.

Food Aid Program: Title II programs seek to meet the critical food needs of those displaced by war and drought through both emergency and regular programs managed by WFP, WVRD and ADRA. Food rations distributed through emergency programs are integrated with provision of agricultural seeds and tools as well as other necessary goods, thus allowing some recipients to maintain more stable lives and return to productive home farming. On-farm trials seek to identify high-potential varieties and techniques for use by resettled refugees and returnees. FFW resources support the repair of feeder roads linking market areas. Section 416(b) food is also distributed through the WFP.

FY 1993 is the final year of a three-year Title III program valued at \$83 million, including transport. The Title III program supports market liberalization and promotes a targeted food safety net to enhance food security of the poor in place of an inefficient rationing system which was not directed toward the most needy. Measuring achievements through these efforts is complicated by the impacts of the 1992-1993 regional drought on food security. However, the Title III commodities not only improved food availability at the aggregate level but also produced specific gains in the urban areas by increasing availability of yellow maize, which has proven to be self-targeting in that it is consumed almost exclusively by the urban poor. Provision of Title III maize sold through markets has also kept prices stable and markets orderly while price controls were lifted. The private sector has been increasingly involved in the handling and marketing of the commodities as the government's efforts to restructure the economy take effect.

Related Dollar-Funded Programs: Development objectives related to food security are targeted to "meet the subsistence food and basic health requirements of the absolute poor" and "increase food supplies through production and trade to meet domestic requirements." Efforts to stabilize the supply of maize throughout the year in order to stabilize prices have started to take effect. Stable prices will benefit consumers directly, and are expected to encourage farmers and traders to increase domestic supplies. Liberalized market policies have increased the supply of perishable commodities in cities and peri-urban areas. Encouraging yellow maize milling by small hammer mills ensures that it is being purchased by the poorest, as this whole-ground corn is the least desirable product (though the most nutritious) and thus the lowest priced. Revised urban food security safety net programs are being considered to reach the 15 percent of the population that cannot afford to purchase even this food. Prices for cassava and beans are still highly variable among regions due to the low supply and lack of marketing among regions.

SENEGAL The limited agricultural production base has deteriorated due to poor weather and poor resource management practices. Despite these problems, Senegal has managed to do better than its Sahelian neighbors on issues of social well-being such as infant mortality, immunizations, and primary school enrollment. Regional disparity in income is high due to differences between coastal and inland incomes. Structural adjustment has improved the management of the Senegalese economy, yet major problems still are impeding economic growth.

Food Security Issues: Technical, institutional, and environmental factors remain major obstacles to making the agricultural sector more competitive and productive. High population growth rates are offsetting very recent improvements in GNP. Casamance separatists have disrupted agricultural production along the Gambian and Guinea-Bissau borders.

Food Aid Program: Title II commodities and Section 416(b) food contribute to WFP regular and emergency feeding programs. Senegal's three-year Title III program (FY 1993-1995) totals \$30 million. Title III food helps reduce the national food deficit and increase food availability. The Title III resource supports policy changes in food pricing and marketing and in natural resource management, and provides local currency for a community agricultural project administered by Africare.

Related Dollar-Funded Programs: Through research and direct interventions using natural resource conservation technologies, production of five key food crops (millet, sorghum, rice, groundnuts, and maize) is expected to increase. Increased family planning services have expanded contraceptive use, thus a slowing of growth in

population can be expected. The reformed forestry code and expansion of tree plantings will encourage farmers to manage their forests for sustainable products and therefore increase their incomes.

UGANDA Uganda is still recovering from two decades of economic and political mismanagement. Recent major progress in and commitment to economic adjustment declined severely in 1991-1992. Agriculture is still the predominant sector, playing a critical role in foreign exchange earnings and income for 80 percent of the population.

Food Security Issues: Although the agricultural production base is very favorable, farm productivity remains far below the potential. Recently, however, clear progress is being made in certain food security aspects: agricultural production increased by 9.2 percent from August 1992 to August 1993, and food prices decreased by 28 percent over the same period. Food security of the rural poor appeared to lag during the initial period of economic restructuring, and people still spend a high percentage of household income on food (almost 70 percent for the 50 percent of households with the lowest income). Child malnutrition remains high and at its worst in the rural areas, although expenditures on primary health care increased by 238 percent in real terms between 1989 and 1991 as government priorities were realigned to target critical social problems.

Food Aid Program: Title II food supports WFP food distribution programs and provides local currencies (through monetization) for Agricultural Cooperative Development International (ACDI) programs seeking to support production and income of small farmers and further develop Uganda's agricultural cooperatives. Section 416(b) commodities are also donated. The three-year (FY 1992-1994) Title III \$30 million program imports tallow which is sold to a wide range of local manufacturers, whose expanded production of soap at competitive prices has resulted in both increased regional exports and increased employment and incomes in Uganda. These Title III commodities allow several small soap manufacturers, who previously lacked access to commercial import supplies of tallow because of their small production volume, to expand and stabilize their production and thus expand jobs.

Local currencies generated by these Title III sales support policy reforms to promote rural enterprises and support community-based cooperatives aimed at improved food security at both the national and household levels. Policy reform achievements have included: dismantling the inefficient parastatal coffee, tea, and produce marketing boards, resulting in higher farmgate prices for rural smallholders and increased total production; and liberalizing foreign exchange policies resulting in a more stable and respected currency. These policy reforms have created a more supportive environment for business development, and in response, Uganda has seen a number of new private sector ventures, both domestic and foreign/jointly-owned, in non-traditional high-value areas like horticultural products, vanilla, spices, silk, and tropical fruits. This has resulted in increased incomes to small farmers. Local currencies have also supported projects seeking to improve rural feeder road systems, expand targeted agricultural research, support small-scale rural oilseed processing, and support agroforestry research in soil conservation and biomass.

Related Dollar-Funded Programs: Incomes in rural areas are expected to increase due to support for non-traditional export production via improved agricultural policies, a decrease in parastatals, and a service-oriented export promotion effort. Rural incomes are also being assisted through increased eco-tourism promoted by natural resource conservation efforts. The Mission is working with UNICEF to monitor child health and nutrition status.

ZIMBABWE At independence in 1980, Zimbabwe had a diversified economy with growth potential, but it faced immediate demands for more equity in the economy and a physical infrastructure strained by the war for independence. Both the mining and agriculture sectors have remained strong, although growth and income has fluctuated sharply due mainly to a series of severe droughts.

Food Security Issues: A bi-polar agriculture sector has kept the rural distribution of income skewed. Poverty and malnutrition are highest among farmers and miners in the communal areas, where the majority of blacks live. Overall, the trend since independence has been toward substantial reductions in child malnutrition, dropping from 25 percent in 1980 to an estimated 10 percent in 1990. Although droughts such as the recent one require large imports of maize, production of staple foodgrains usually exceeds domestic needs; during 1980-1986, the sector grew at an average of 4 percent per year in real terms. Seasonal movement in food prices and availability cause food insecurity among poor households, and about 40 percent of household income is spent on food. Food milling and marketing is centralized, with raw grain coming from the producing rural farms to Harare for processing and then returning to rural areas to be consumed. Recent reforms are slowly privatizing and dismantling this inefficient

system. Zimbabwe has a strong commitment to health objectives, and its public health expenditure of 6 to 8 percent of the government budget is nearly twice that of Egypt, a country with the same level of per capita GNP.

Food Aid Program: Title I food commodities are sold to increase food availability; local currencies support progressive elimination of agricultural and food price controls and structural adjustments in grain marketing, as well as promoting delivery of appropriate technology and supporting crop diversification. Title II food is donated to WFP emergency feeding programs underway in-country.

Related Dollar-Funded Programs: Grain marketing reforms are aimed at achieving a lower-cost, more competitive grain trading system. This should increase the amount of grain marketed and facilitate the efficient movement of grain from surplus to deficit regions. Enhancement of family planning services is intended to support continued reduction of the population growth rate.

ANGOLA A large country with vast natural resources, Angola has the potential for great productivity. Three decades of civil conflict, however, have destroyed much of the infrastructure, displaced most of the population, and sent most skilled labor out of the country. **Food Security Issues:** A fierce and protracted civil war has largely destroyed marketing and production infrastructure, and four consecutive years of drought have reduced agricultural production by 75 percent in central and southern Angola. Poverty and malnutrition are most acute in the rural areas due to civil strife, a lack of interregional trade, and no access to social services. **Food Aid Program:** Title II programs implemented by the WFP, CARE and CRS strive to provide humanitarian assistance and emergency feeding to vulnerable groups and targeted community development projects. In addition, Section 416(b) commodities are distributed by the WFP through emergency feeding programs. Legislative prohibitions on U.S. developmental aid to Angola were lifted in 1992, but resources remain focused on the continuing emergency.

BURKINA FASO Burkina Faso is a resource-poor country with a high population growth rate. Almost all of the population are dependent on agriculture and livestock, with soils that are fertile but fragile. Dysfunctional economic infrastructure combined with environmental degradation, drought, and, until recently, inefficient economic policies, have kept economic performance low. **Food Security Issues:** Low household incomes inhibit food access and environmental degradation reduces food production and availability. **Food Aid Program:** Title II programs implemented by the WFP and CRS seek to improve child nutrition, generate income, support enterprise development, and provide humanitarian relief through a diverse range of projects including FFW, MCH, and monetization-supported enterprise activities. **Related Dollar-Funded Programs:** Cooperative research with local farmers to test new technologies is aimed at increased production. Stability and sustainability of production is pursued through village-level efforts to adapt proven natural resource technologies. Diarrheal disease control and nutrition education are being used to improve nutrition of children.

CAPE VERDE Cape Verde, which consists of ten resource-poor islands, is a country whose main source of sustainable income is from its position as a prime transit point to provision ship and air traffic. Traditionally, more Cape Verdeans live abroad than at home, sending significant remittances to those who remain on the islands. With only a tenth of its land arable and prolonged drought cycles which cause severe shortages of fresh water, agricultural production is limited. **Food Security Issues:** Cape Verde is very dependent on imports of food; local food production is very limited and the lack of fresh water also exacerbates nutrition and health problems. Natural resource degradation threatens the local agricultural production and water that does exist. **Food Aid Program:** The WFP uses donated U.S. food from Title II and Section 416(b) in feeding programs. Title II food is monetized through ACDI to generate local currency that supports improved water resource management in an effort integrated with dollar-funded programs. **Related Dollar-Funded Programs:** Soil and water conservation methods, along with new crop varieties, are being tested and disseminated to improve agricultural productivity. Watershed management is also addressing water conservation through reforestation. It is also intended to increase incomes for poor laborers.

COTE D'IVOIRE Declining world commodity market prices, inappropriate economic policies, immigration, and high fertility have led to a serious decline in GNP per capita in this former "success economy." Efforts to make government policies more market-based and diversify agriculture away from coffee and cocoa are making slow improvements. **Food Security Issues:** Producer and trader price restructuring has caused a significant decline in rural incomes. Consumer price adjustments have caused a large decline in per capita consumption of all goods.

Food Aid Program: Local currencies generated by Title I food sales provide balance-of-payments support and contribute to national food availability, and Title II commodities are contributed to WFP activities in-country.

THE GAMBIA This small country borders both sides of the Gambia River and is completely surrounded by Senegal. The economy relies on rainfed production of groundnuts (mostly for export) and cereals, along with fishing and agricultural processing. **Food Security Issues:** Food availability and access are growing more stable as structural and sectoral economic policy reforms facilitate the development of a more robust economy, but environmental deterioration, including overgrazed land and salinity intrusion on crop land, threatens the country's food security situation. **Food Aid Program:** Title II commodities are used in feeding programs implemented by the WFP and CRS, and some commodities are monetized to support maternal and child health and nutrition activities throughout the country as well as to increase women's incomes through marketing activities. **Related Dollar-Funded Programs:** Ongoing divestiture of agricultural parastatals is contributing to more efficient agricultural production and marketing. Increased popular awareness of family planning techniques is being used to decrease population growth rates, and oral rehydration salt packets are distributed along with instructions in order to reduce diarrheal disease in children and improve their food utilization.

GUINEA-BISSAU The economy is dependent on a large, traditional agricultural sector producing rice (the major domestic staple), cashews, groundnuts, and fish for export. Though Guinea-Bissau is one of the world's poorest and least developed countries, relatively generous natural resources, especially the arable land, allow optimism for future growth. **Food Security Issues:** Although Guinea-Bissau is expected to achieve self-sufficiency in rice during the 1990s, the distribution of income and access to food is very skewed. **Food Aid Program:** Title II food commodities are used by the WFP in regular food programs and are monetized by Africare to support rural development programs with training and credit.

KENYA Recent economic and political unrest has combined to inhibit consolidation of earlier efforts to develop broad-based economic growth through agricultural exports, tourism, and light manufacturing. Given the large population and limited land with adequate rainfall, productivity increases through technology improvements, switching to higher value crops, and continued improvements in cereal marketing are essential to increasing household incomes. **Food Security Issues:** The food security situation is tenuous, with wide regional and seasonal variation due to: 1) regional variations in efficiency of marketing systems for cereals; 2) a tendency for droughts especially in the northern and north eastern provinces; 3) one of the highest population growth rates in the world; 4) an influx of Somali refugees; and 5) Kenyans displaced due to tribal violence. The child mortality rate, though currently one of the lowest in Africa, is expected to worsen because of these problems. **Food Aid Program:** Title II food is distributed in emergency programs managed by WFP and UNICEF, as well as in regular programs managed by CRS and WVRD including MCH, FFW, and general relief activities. A substantial quantity of Section 416(b) commodities are also provided to the WFP in support of both emergency and regular feeding activities. Historically, Kenya has had a large focused A.I.D. program including a Title III program, but recent deterioration in political openness and in sound economic management has resulted in a reduced A.I.D. program.

LIBERIA The ongoing civil war has ravaged this country and its already fragile economic systems. Development agencies are focused on protecting people who have been adversely affected from further deterioration of their health and nutrition status. **Food Security Issues:** The child mortality rate remains very high and is expected to remain so until political stability allows for effective agricultural production and distribution. Access to oral rehydration therapy remains fairly limited. Although prior to civil conflict only a quarter of the population was in absolute poverty, it is estimated that this number has increased dramatically due to the war. **Food Aid Program:** A large amount of Title II food and Section 416(b) commodities are being used by the WFP and CRS in emergency food assistance and related humanitarian relief programs.

MAURITANIA Mauritania is a vast country that is mostly desert. As prices have declined for iron ore, its major export, fish exports have become the main source of foreign exchange. Agricultural output is mostly limited to farming along the Senegal River and livestock production. Migration from the rural areas, where employment opportunities are almost nonexistent, to urban areas and other countries is high. Population growth and environmental degradation are the two major constraints to development. **Food Security Issues:** Recurrent droughts along with environmental degradation from deforestation, overgrazing, and cultivation of marginal lands have decreased agricultural productivity and increased soil erosion, further decreasing future yields. Poverty is pervasive with limited national income inequitably divided between the small Arabic-origin population (receiving higher

incomes) and the larger, predominantly black-African population. Food Aid Program: Title II food commodities are distributed through community-based MCH, FFW, and general relief programs operated by a local PVO, Doulos Community, while Title II and Section 416(b) food is used for direct feeding and emergency programs managed by WFP.

RWANDA Rwanda is a small country with limited natural resources and the most dense population of any country in Africa. The population is continuing to grow at an alarming rate, with 95 percent of the people living in rural areas. Development is directed towards increasing private sector agricultural and non-agricultural opportunities and decreasing population growth. Recent indications show that employment has increased in manufacturing and commerce. However, the rebel invasion has kept the level of government spending on military personnel and equipment high despite negotiations to include the rebels in a multiparty government. Food Security Issues: Annual per capita food consumption has been declining. Northern Rwanda has traditionally been a food surplus area, but due to the fighting, 350,000 people have been displaced from this region creating a food deficit in the area and a need for food for the refugees. Food Aid Program: Title II food is provided through emergency refugee assistance and feeding programs managed by the WFP, CRS and ICRC. Section 416(b) food supports WFP emergency programs.

SIERRA LEONE Although well endowed with natural resources, Sierra Leone has a low and declining GNP per capita. The physical and social infrastructure is not well developed and investments in human capital are below average African standards. Food Security Issues: Starting from a low per capita income, and given that the distribution of income is very uneven, poverty is widespread. Living standards have fallen sharply in the last two decades. Although agriculture employs more than two-thirds of the labor force, and rice, the staple food, is grown by most farmers, Sierra Leone has needed to import large quantities of rice for two decades. A large influx of Liberians displaced by the civil war in their country has added to the demand for food in Sierra Leone, further aggravating the food security situation. Food Aid Program: Title II food commodities are distributed through regular distribution programs such as FFW, MCH, and SF managed by the WFP and CRS. CRS emergency feeding programs also use Title II food commodities to bring humanitarian aid to refugees from the civil war in neighboring Liberia.

SOMALIA Somalia, mostly desert and rangeland, has always been a poor country with the population dependent largely on rainfed agriculture and the grazing of sheep and goats. The civil war along with drought has disrupted this already fragile existence, forcing migration of survivors into regional feeding and refugee centers. Within these forced confines, without proper sanitation for the most part, diseases also have become rampant. Many of the civilian population have died from or suffer from war wounds. Food Security Issues: The major challenges are supporting the civilian population through food aid until political stability can be achieved and normal economic progress can recommence, and assisting in the re-establishment of functioning markets and distribution systems which can operate once stability is restored. Food Aid Program: Emergency humanitarian relief is the short-term focus of this massive and difficult effort; Title II food and Section 416(b) commodities are provided to WFP, ICRC, CRS and WVRD in order to feed refugees and victims of years of drought and civil war and keep fragile market systems intact.

SUDAN The major factor in Sudan's economy is the civil war and continued unrest. As the largest country in Africa, much of the country is sparsely populated. Pastoral production and crop production are possible on two-thirds of the land. Food Security Issues: Poverty and malnutrition are widespread due to a decline in per capita income and a collapse of the traditional food security structures. Migration forced by the necessity of finding food has disrupted family structures and put the population at further risk of disease as well as injuries from the war itself. Food Aid Program: Title II commodities and Section 416(b) food are provided for both emergency humanitarian relief programs and regular distribution programs managed by ADRA, CRS, WVRD, and the WFP. These programs, which include general distribution as well as several FFW projects, seek to increase food access among the vulnerable poor. Sudan was recently listed by the U.S. as a country supporting terrorism and thus is only eligible for humanitarian emergency assistance.

TOGO Togo has tremendous potential for growth given its endowment of agricultural and mineral resources along with its role in regional banking and trade. What is needed most is a stable, democratic climate for growth, which is currently undermined by the continuing internal political strife. Food Security Issues: Food security indicators in Togo have improved in the past several years; although largely self-sufficient in food production, large regional

disparities remain within the country. The north relies mostly on subsistence food crop production while the south also produces cash crops for export. A high population growth rate threatens both present and future food security. Food Aid Program: Title II commodities are provided for direct distribution through MCH and SF programs through CRS, and for monetization through OIC in support of maternal and child health and feeding programs and community training activities.

B. ASIA

BANGLADESH Food security indicators in Bangladesh have improved steadily over the past several years. However, Bangladesh had a per capita GNP of \$220 in 1991, and incomes remain stagnant as efforts to reduce widespread poverty meet substantial obstacles. The economy is heavily dependent on foreign aid. The country is densely populated, and the topography makes it prone to natural disasters. Population growth continues to strain already fragile resources and pressure the overworked land. Health and nutrition indicators are extremely low in Bangladesh, although targeted interventions continue.

Food Security Issues: Food availability, although still a factor in transitory food insecurity, is much less of a problem than it was as recently as the mid-1980s. Domestic production of staple foods is growing at a rate that exceeds the population growth rate, although food deficits persist. Food access is now considered to be the primary food security concern — close to one-half of all Bangladeshis do not earn enough to afford a basic diet with the minimum necessary nutritional elements, and the average Bangladeshi household spends 67 percent of its budget on food. Per capita calorie availability is estimated at 2,000 calories per day; this figure has remained unchanged over the past 15 years although the distribution has worsened. Estimated prevalence of child malnutrition dropped from 70 percent in 1981 to 66 percent in 1990, but malnutrition remains stubbornly high in both urban and rural areas. Food utilization is also inadequate in many poor households and among vulnerable groups. Inadequate maternal child care contributes to nutrition problems. Infant mortality rates dropped throughout the 1980s, possibly related to increased immunization coverage beginning in 1986. Access to health services is increasing, although per capita government expenditures are among the lowest in the world at an average of under \$1 per person.

Food Aid Program: Title II programs include an FFW earthworks for road construction program managed by CARE in collaboration with the government, directly benefitting 500,000 workers and their 3 million dependents (the largest USAID FFW program in the world) by providing additional food to households through worker rations. These FFW employment opportunities are especially valuable to the participating women, for whom it provides employment in the off-season. Evaluations show that these new roads prompted increased farm activity and use of new farm technology, and provided increased access to markets and services. Title II food is also donated to the WFP for their food distribution programs in-country. One CARE-sponsored program included an environmental training workshop in November 1992 for staff on assessing environmental impacts and aspects of proposed FFW sites and projects in the future.

The Title III program imports wheat, providing foreign exchange support and increasing total availability without additional pressure on the tightly constrained government budget. Local currencies generated are used to support policy reforms that target increased national and per capita incomes, which can in turn improve food access. Specifically, the program seeks to support increased private sector investment in agriculture, increased access to efficient family planning and health services, and increased non-agricultural private sector investment. Achievements to date through the Title III-supported policy reforms include: partial decontrol of foodgrain pricing and procurement, resulting in significant drops in consumer foodgrain prices; increased private sector fertilizer imports and distribution, including 100 percent of urea and 91 percent of all fertilizers distributed by the private sector; increased rural use of electricity for irrigation and agribusiness, which has been linked to improved productivity and increased farm incomes; increased use of contraceptives and increased coverage and use of family planning services; broad-based increase in urban immunization coverage; liberalized investment rules and streamlined processing of duty exemption/drawback requests; and more competitive market-based bank services, including decontrolled interest rates.

Related Dollar-Funded Programs: USAID strategic objectives include "increased access to essential services," including services affecting food availability, access, and utilization, and "increased productivity and competitiveness in the agricultural, industrial, and financial sectors," which promotes food availability, as well as food access through increasing household income, and through targeted programs that incorporate food commodities.

INDIA India's population of 850 million is the world's second largest, and its GNP of \$330 per capita in 1991 is very low. In spite of these constraints, India has been successful at fighting famines, reducing poverty, and developing diverse and sophisticated industrial and financial sectors that generate strong growth in agriculture. Recently, substantive policy shifts have indicated that a more open and less controlled economic approach may generate still greater growth, but population growth will be a substantial factor affecting any potential welfare gains.

Food Security Issues: The government has announced that improving the living standards of the poor and accelerating the development of India's human resources are among its most important policy priorities. In the 1980s, the percentage of people living in poverty dropped from 48 percent to 29 percent, attributed both to targeted poverty alleviation programs in the early 1980s and to economic growth in the mid-1980s. While dramatic improvements in agricultural technology and productivity have had positive effects on food availability, which increased from 94 percent of requirements in 1985 to 101 percent in 1990, household food access and utilization remain concerns. The situation appears to be static with respect to household consumption although there has been a significant improvement in the dietary intake and nutritional status of pre-school children through massive government and donor-supported targeted interventions (see below).

Food Aid Program: India's Integrated Child Development Services Scheme (ICDS) is a child survival and development program providing health services, food, and education to 7 million children in India's poorest communities. CARE and CRS use Title II food commodities as they assist in implementing this project, as well as FFW, MCH, and SF activities that target the poor. CRS's FFW program specifically promoted the use of FFW resources for soil and water conservation and afforestation activities, contributing to the sustainability of agricultural production. Title II food commodities are also donated to the WFP for distribution in its programs in India. Evaluations have consistently shown that ICDS has been successful in reducing infant and child mortality and morbidity and reducing malnutrition, and a 1993 IFPRI report found that ICDS has led to improved maternal and child health and nutrition as well as enhanced performance in primary school.

The Title III program supports policy reforms that promote accelerated economic growth and enhancement of food security of India's poor majority. The commodities imported increase total availability of vegetable oil. Periodic open auctions of oil through private sector channels help stabilize prices when market supplies are low, thus reducing price volatility and its negative effect on household purchasing power. The present annual per capita consumption of edible oils in India is approximately 7 kilograms, well below the world average of 15 kilos. There is thus a vast unmet latent demand for edible oil in India. Title III local currencies support policy reforms that seek to provide a safety net for workers displaced by governmental reform, creating a National Renewal Fund which provides lump sum payments and retraining programs for workers whose jobs are eliminated as their firms restructure operations to become more competitive in India's emerging market-based economy. This critical shift in India's economic structure is a controversial and challenging effort which will provide medium-term income support to workers whose retraining and redeployment will hopefully provide increased long-term income potential.

Related Dollar-Funded Programs: Strategic objectives include "smaller, healthier families," which affect food availability and utilization, and "increased productivity of Indian enterprises," which affect income and therefore food access. The Innovations in Family Planning Services project will emphasize birth spacing and thus have an indirect long-term impact on household nutrition, while the Plant Genetic Resources project will encourage sustainable agriculture and bio-diversity, supporting food availability. A.I.D. is identifying alternative indicators of food and nutrition insecurity for field testing and future use in tracking food security.

INDONESIA Indonesia is a diverse nation of more than 13,000 islands with 180 million people from a wide range of ethnic and cultural backgrounds. The country has a diversified resource base, with a rich agricultural sector, abundant timber and mineral resources, and growing non-oil, non-gas exports driven by trade liberalization and open macroeconomic policies. Indonesia is expected to increase real GDP by almost 70 percent in the 1990s, raising per capita incomes 40 percent in real terms. Equitable economic development resulted in a lessening of poverty, and the surge in private investment continues to fuel non-oil exports and private consumption.

Food Security Issues: Poverty has continued to decline throughout Indonesia's rapid economic growth and income distribution has not deteriorated, partly due to the government's emphasis on rural development. The number of people estimated to be below the poverty line declined from 54 million in 1976 to 27 million in 1990; this represents a reduction of 50 percent in the scope of poverty in less than one generation, the highest rate of any country in the

world in the 1980s. It should be noted that the poorer eastern islands (especially East Timor and East Nusa Tenggara provinces) have not experienced the same level of social and economic progress, and food shortages and malnutrition are still very much evident in those areas.

Food Aid Program: Title II programs managed by CRS include FFW activities that support water resource development, land and watershed conservation, and improved natural resource management, through terracing and reclaiming land. MCH activities are integrated with child survival activities, targeting poor and at-risk children, while rural poor families who participate in village-level health programs are also targeted for a microenterprise support project that seeks to increase household income. Title II assistance is targeted to regions and districts off-Java where levels of poverty are most serious.

Related Dollar-Funded Programs: Strategic objectives include "strengthening market competitiveness," which seeks to affect incomes and thus food access, and "building a sustainable relationship between population and environment," which seeks to affect availability.

MONGOLIA Mongolia is a vast but sparsely populated nation of 2.1 million people with a semi-arid climate and high elevation where 80 percent of the abundant agricultural land is suitable for extensive animal husbandry. It is rich in mineral resources and has potential for hydro and wind-generated electricity. In the transition from a command economy to a market orientation, Mongolia's economic situation has deteriorated, and GDP has fallen while unemployment has risen. Shortages of energy, raw materials, food, and medicine led to falling living standards in 1991. **Food Security Issues:** Economic adversity helped drive food intakes down by 30 percent, to levels that FAO estimates are well below the minimum nutritional requirements. Infant mortality and child malnutrition are reported to be rising. **Food Aid Program:** Section 416(b) commodities were provided to the government to increase total food availability.

PAKISTAN Pakistan is a nation of 112 million people with a per capita income of \$390 and a population density almost twice that of the average low-income economy. Population growth is estimated at 3.1 percent annually, and social indicators are low, reflecting long-term problems in providing basic health and education services. Pakistan's production and export resources are undiversified, and agriculture continues to dominate. Although economic gains are being made, the high population growth rate and poor social development undermine the pace of development and exacerbate inequitable income distribution. **Food Security Issues:** Food security indicators for Pakistan show steady improvement in recent years. However, infant mortality and life expectancy indicators are poor, health coverage is limited, and inadequate public services and limited access to productive assets perpetuate poverty. **Food Aid Program:** Title I provides support for increased production efficiency, livestock sector development, disease control, and sale of commodities through auction to the private sector. Section 416(b) food is donated to the WFP to use in-country.

PHILIPPINES The Philippines is completing a period of major economic restructuring and change that seeks to eliminate distortions and misallocations and encourage diversified growth. Per capita GNP in 1991 was estimated as \$730, an impressive increase from the 1985 estimate of \$580, but still stagnant when compared with the 1980 level of \$740. The government's current strategy includes attention to poverty alleviation and social justice, increased economic efficiency, and reduced government involvement in the economy. Food security indicators for the Philippines have shown steady progress in the past several years.

Food Security Issues: Drought and disasters contributed to a 6 percent decline in grain production in 1991, causing the government to draw down food stocks, although stocks remained adequate for 1992 food needs. Food production remained virtually stagnant through the 1980s, as the dramatic earlier increases in rice yields from new varieties reached a plateau. Food access and utilization are the most significant food security constraints, with aggregate food supplies generally adequate at the national level although domestic food production is often volatile. An estimated 70 percent of households in both rural and urban areas are below the income level needed to obtain an adequate diet. Chronic dietary energy deficiency persists as a problem among both adults and children, although recent years have seen some progress towards improvement.

Food Aid Program: Title I provides support to development of the livestock sector and ensures the participation of the private sector in the purchase and sale of the commodities. CARE and CRS Title II feeding programs, including both MCH and SF, target school-age and pre-school children for intensive feeding and pregnant and

lactating mothers for additional rations providing 10 to 14 percent of daily caloric requirements. One MCH program monitoring growth data reported that with 66 percent of MCH sites reporting, participant child weight was improved for 46 percent, maintained constant for 39 percent, and regressed for 15 percent of the children. Title II wheat, through CRS, is also monetized to support the purchase of local commodities, to provide health and nutrition education, and to fund microenterprise development which seeks to increase household incomes. Title II food has also proven to be a valuable resource in efforts to protect vulnerable groups during disasters such as the Mt. Pinatubo eruption.

Related Dollar-Funded Programs: Strategic objectives include "open and competitive markets," which can affect availability, and "efficient provision of essential services," which can affect utilization. The Agribusiness System Assistance program seeks to have a direct impact on both availability, through increased productivity and diversification, and access, through increased farm and household incomes.

SRI LANKA Sri Lanka's economic and social prosperity has plummeted from the 1950s, when it was on par with Malaysia, to a situation with high unemployment, slow growth, and civil strife. The government's current objective is to sustain economic growth of 5 percent or more in the context of viable fiscal policies and price stability.

Food Security Issues: Due to a traditionally strong emphasis on the social sector, Sri Lanka's health indicators rival those of many middle-income countries, reflecting excellent access to educational and health services. The prevalence of child malnutrition, as measured by underweight children, dropped from 58.3 percent in 1976 to 47.5 percent in 1980 to 36.6 percent in 1987. Recently, however, per capita food production has declined as productivity has stagnated, and poverty alleviation services have suffered from budgetary crises at the same time that structural reforms have resulted in economic dislocations.

Food Aid Program: Coordinated Title III and Title I programs provide support for the liberalization of the Sri Lankan food and agricultural economy through policy and institutional reforms aimed to improve food security and increase rural incomes. Ten percent of local currencies generated by the sale of wheat donated under the Title III program is used to help support local NGOs with income-generating activities through the PVO Co-Financing II project, and a large amount of local currency funds support an extensive food stamp program that assists low-income households in improving nutritional intake.

Agricultural sector policy reforms supported by Title III produced impressive achievements, including the privatization of a state fisheries corporation, an action plan for an extensive land survey and titling program, revised plant quarantine procedures, reduction of export taxes on key products including tea, rubber, and coconut, decontrol of flour and bread prices, and restructuring of the Agricultural Insurance Board. Additional recent achievements in the food grains sector have included elimination of the parastatal rice marketer's monopsony position, and limited private sector rice imports which are a key step toward the goal of full open and competitive private sector rice marketing. This move to a more intensely competitive market for rice should produce greater efficiency and result in lower prices and greater availability, improving food access.

Related Dollar-Funded Programs: Strategic objectives include "diversification and commercialization of agriculture," which affects rural incomes and food availability; "sound investment and business performance," which can affect both access and availability; and "sustainable environmental and natural resource policies," which can affect availability.

C. EUROPE

Many Eastern European countries receiving food assistance do not have data available over time on food security aspects. However, the major international development organizations are now working to develop and implement data gathering and monitoring systems which will generate this much-needed data in the future.

ALBANIA Per capita income in 1990 was estimated at \$790, a 30 percent decline from the already low level in the mid-1980s. Albania is a predominantly agricultural society with a population of 3.3 million. In spite of its low income, Albania has economic potential if strategic support is provided.

Food Security Issues: Agricultural output has declined some 30 percent in the past decade, and dysfunctional marketing and infrastructure systems inhibit both availability and access. Although specific data on per capita consumption are difficult to obtain, the most accurate estimates indicate that actual calories available seem to be less than 2,000, and choice of foods is extremely limited. In many areas, malnutrition is reported to reach levels comparable with those in Sub-Saharan Africa.

Food Aid Program: Section 416(b) commodities were provided to be monetized and local currencies were used to support revitalization of the rural economy. Wheat and rice from Title I were provided under Food for Progress. Title II food is distributed in an American Red Cross-sponsored direct feeding program targeting the poorest seven percent of the population in the eight districts with the highest infant mortality rates.

Related Dollar-Funded Programs: The Support for Agriculture Restructuring in Albania (SARA) project seeks to enhance food security by supporting the development of a market-based agricultural sector through market reform. The SARA project provides farmers with improved access to fertilizers and transport through new private sector distribution channels, thus assisting in higher agricultural productivity and increased production. Through the Farmer-to-Farmer (FTF) program, agricultural specialists from Volunteers in Overseas Cooperative Assistance (VOCA) will provide technical assistance to farmers, cooperatives, government agencies, and farm commodity groups, in support of the development of productive and efficient private farms and agribusinesses. Through A.I.D. funding, the Wisconsin Land Tenure Center will assist Albanian district land tenure offices to develop land registration, surveying, and titling methodologies for the privatization of agricultural and urban land.

BULGARIA Bulgaria is a lower-middle-income country with a population of about 9 million, where economic activities have only recently been released from tight state control and the resulting massive price distortions. Economic performance deteriorated in the face of adjustment shocks, but began to stabilize in late 1991. Prospects for exports are encouraging but regional conflicts constrain growth in the short run.

Food Security Issues: The difficult path of market reform has led to short-term food insecurity in Bulgaria, where rising food prices and increasing unemployment have eroded household food access for many. The average household spends at least 60 percent of its income on food.

Food Aid Program: Title I commodities assist in supporting land reform, agricultural privatization, and agricultural extension. The Title I feedgrains also directly increase availability of feed for livestock and therefore help increase protein availability for human consumption.

Related Dollar-Funded Programs: The Bulgarian Agricultural Support project provided U.S. coal to help ameliorate balance-of-payments constraints, and local currencies are being used to further land titling reforms and assist in privatization of agricultural land, which will allow for a more productive agricultural sector. Through the regional Restructuring Agriculture and Agribusiness project, agricultural specialists from USDA, VOCA, Land O'Lakes, ACDI provide technical assistance to farmers, cooperatives, government agencies, and farm commodity groups, in support of the development of productive and efficient private farms and agribusinesses. The Restructuring Agriculture and Agribusiness Private Sector (RAAPS) cooperative agreement provides training, technical assistance, and business partnerships to assist in the restructuring of Bulgaria's agriculture and food systems.

EX-YUGOSLAVIA Since Bosnia-Herzegovina declared independence from Yugoslavia in 1992, it has been the core of intense and merciless fighting, although certainly many other regions in the former Yugoslavia are also suffering. By June 1992, food reserves were inadequate and starvation had begun. More than 15 months later, thousands more have been killed with no lasting peace in sight. **Food Security Issues:** The conflict has inhibited agriculture and food production, and many parts of the former federation were threatened in early 1992 with famine and poverty because fighting prevented normal work and disrupted international distribution and external trade. U.N. food convoys have been repeatedly attacked in a deliberate attempt to prevent relief, severely constraining the capacity of international organizations to provide the levels of assistance needed. **Food Aid Program:** The U.S. is providing 186,000 metric tons of food from Title II and Section 416(b) funding in support of emergency feeding programs implemented by CRS, FAO, the American Red Cross, and the WFP.

FORMER YUGOSLAV REPUBLIC OF MACEDONIA There are no national statistics available for the former Yugoslav Republic of Macedonia, a product of the rapidly-changing political and geographic transformation of

Europe after the dissolution of the USSR. The U.S. is providing Title II food through a CRS-managed emergency feeding program. As in other countries in the region, the Restructuring Agriculture and Agribusiness project is providing technical assistance through agricultural specialists from VOCA to farmers, cooperatives, government agencies, and farm commodity groups, in support of the development of productive and efficient private farms and agribusinesses.

LATVIA Latvia is a Baltic nation of 2.6 million people with a diverse range of agricultural and industrial activities in the economy. The republic suffers from a scarcity of foreign exchange and will require industrial and agricultural investment to produce future export goods.

Food Security Issues: The breakdown in regional trade after independence has resulted in shortages of food commodities and fuel, and delays in land redistribution programs have discouraged agricultural production. The 1992 drought in the Baltic region has affected food production domestically.

Food Aid Program: CCC purchases of corn were provided under Food for Progress.

Related Dollar-Funded Programs: Through the regional Restructuring Agriculture and Agribusiness project, agricultural specialists from VOCA, Land O'Lakes, and ACDI provide technical assistance to farmers, cooperatives, government agencies, and farm commodity groups, in support of the development of productive and efficient private farms and agribusinesses.

LITHUANIA Lithuania, with a population of 3.7 million, is the largest of the Baltic Republics. The population has a large proportion of older people, and approximately 38 percent of the population lives in urban areas. Like other republics from the former USSR, Lithuania has felt the impact of collapse of intra-republic trade and lack of hard currency reserves. While there is a scarcity of food and fuel, shortages are generally not as severe as those in other Baltic nations.

Food Security Issues: Lithuania established new social assistance programs in July 1991, and allotments have increased each month to adjust for inflation. The aging population places an increasing burden on government budgets for social programs. The 1992 drought in the Baltic region has affected food production domestically.

Food Aid Program: Title I supports agricultural credit, improved processing and storage facilities, and increased breeder livestock, and encourages private sector participation in commodity marketing and distribution.

Related Dollar-Funded Programs: The Restructuring Agriculture and Agribusiness project also provides technical assistance in Lithuania in support of the development of productive and efficient private farms and agribusinesses.

ROMANIA Romania has a population of 23.2 million with a per capita GNP of \$1,620. The country has a wide range of natural resources, including a fertile agricultural base, minerals, and fuel sources. The agrarian roots of the economy persist, although Romania is making progress in the transition to a market economy, and in spite of constraints there is economic potential in agriculture, exports, and tourism.

Food Security Issues: Romania's once impressive food distribution system collapsed during the repressive regime of Nicolae Ceaucescu, and it has barely begun to recover. Agriculture, which employs 30 percent of the work force, remains extremely inefficient, and land reform efforts to date have been disappointing to farmers. Price increases and low household incomes have increased the number of Romanians thought to be at or near poverty. Doctors report that many of the country's 120,000 abandoned children were sent to orphanages because their parents could not afford to feed them.

Food Aid Program: Title I supports reforms including transfer of land to private individuals, development of private marketing and distribution systems for agricultural products, and establishment of a loan guarantee fund for private farmers. Section 416(b) commodities were provided to be monetized and local currencies were used to support revitalization of the rural economy.

Related Dollar-Funded Programs: The Romanian Agricultural Sector project seeks to enhance food security by supporting the development of an efficient private farm sector and thus increasing the availability of food in the long

term. The project provides feed supplements to be auctioned to private farmers, and the local currencies generated are used to support the application of global positioning system technology and to develop a local land register and a viable private land market.

D. LATIN AMERICA AND THE CARIBBEAN

BOLIVIA Bolivia is a nation of 7.2 million people with a per capita income of \$650. The economy is experiencing positive growth, but the education level of most Bolivians is limited and health indicators are among the worst in the region. Bolivia, which is one of the poorest countries in the region, began its stabilization and adjustment program in 1985 after a period of rapidly deteriorating economic conditions, and now enters the 1990s having successfully stabilized its economy. The economy, however, is still burdened by extremely high external debt (82 percent of GDP) and is still dependent on a few primary commodity exports with uncertain market prospects.

Food Security Issues: Food production per capita increased during the 1980s but per capita calorie availability did not, because food imports fell due to severe economic problems and shortages of foreign exchange. IFAD estimates that 95 percent of the rural population and 50 percent of the urban population have incomes insufficient to obtain adequate diets. The average per capita calorie availability in 1989 was 1,916 per day, down from the 1981 figure of 2,106. UNICEF estimates that current average availability is only 84 percent of daily requirements, down from 88 percent in 1985. Inadequate water and sanitation facilities and lack of health services still contribute to high child malnutrition, although the prevalence of underweight children is dropping (14.5 percent in 1981, versus 11.4 percent in 1989). Inadequate water and sanitation facilities and lack of health services, particularly in the rural areas, contribute to the high child mortality rates and malnutrition rates, which are still among the highest in the LAC region. Chronic malnutrition rates, in particular, are extremely high.

Food Aid Program: Under USAID/Bolivia's new Title II strategy, a major portion of Title II resources now go to support a municipal FFW program managed by CARITAS (a local NGO), ADRA and Project Concern International. The temporary employment provided by this program helps provide a "safety net" for the country's poor during Bolivia's continuing economic adjustment at the same time that it contributes to A.I.D.'s democratic initiatives by enabling poor neighbors to participate in municipal decisionmaking. The program, which is currently active in nine major cities and 86 rural towns, provides temporary employment for over 20,000 workers per month and was responsible for the construction of over 800 projects (including potable water and sewerage systems, garbage collection services, storm drainage canals, street and road improvement, housing construction, parks and plazas) during the first half of FY 1993. This program also helps improve people's health by improving the basic sanitation conditions in the poorest neighborhoods, and recommendations from an A.I.D.-sponsored assessment which are designed to enhance the food security impacts of the program are in the process of being implemented. Three rural development programs are also underway sponsored by Food for the Hungry International, CARITAS and ADRA which help increase subsistence food production and improve the health of mothers and their children. FHI has been successful in constructing potable water wells, micro-irrigation systems and greenhouses which have introduced vegetable production used for household consumption in the highlands. School feeding programs operated by FHI and CARITAS have achieved their targets of reducing school attrition rates by 20 percent. Title II food is donated to the WFP for use in its regular food distribution programs.

Bolivia's Title III multiyear FY 1992-1994 program, some \$65 million over the life-of-project (LOP), imports wheat which is sold on the open market and provides balance-of-payments support and increases national availability. More than 50 percent of the local currencies generated support dollar-funded A.I.D. projects such as: Santa Cruz integrated wheat research/production/marketing project, which has already increased domestic wheat production; the Cochabamba Regional Development project that seeks to develop alternative sources of employment and household income away from coca/cocaine; and health projects that improve access to health services and thus target improved utilization. Title III local currencies also support policy reforms designed to improve natural resource management and change the legal, regulatory, and institutional aspects of land tenure and land markets, including the following target outputs: creation of a national environmental defense fund and a new environmental law; studies on new systems of forestry concessions and new land tenure laws; and decentralization of forestry management and implementation of new techniques. The Mission is in the process of developing a monitoring and evaluation system which will use a range of indicators to track the Title III impact.

Related Dollar-Funded Programs: Three strategic objectives are related to improved food security: "alternative development" and "increased non-coca trade and investment" may affect availability and access and "improved family health" may affect utilization. Projects supporting these objectives total \$84.9 million in FY 1993 dollar resources. Indicators have been developed at all three levels of food security for monitoring and reporting impact in the future.

COSTA RICA Costa Rica has a population of about 3 million currently growing at 2.4 percent annually. Education, health, and social indicators reflect a nation whose social infrastructure is one of the best in the region. GDP and per capita income are increasing steadily, with the services sector steadily expanding. **Food Security Issues:** National food availability is not a concern in general for Costa Rica, and attention focuses primarily on household food access and individual utilization for poor segments of society. Per capita calorie availability has risen from 118 percent of daily requirements in 1985 to 121 percent in 1990, while child mortality dropped from 31 per 1,000 live births in 1980 to 18 in 1991. **Food Aid Program:** Title I supports improved animal health and inspection services, environmental protection, and rural infrastructure. Title II food is donated to the WFP for its use in targeted programs in-country. **Related Dollar-Funded Programs:** One strategic objective, "increased economic competitiveness," may affect the maintenance of food availability and access aspects of enhanced food security. Projects supporting this objective total \$2.6 million in FY 1993 dollar resources.

DOMINICAN REPUBLIC The Dominican Republic is a small densely-populated country with a per capita GNP of \$940 in 1991. In the last two decades, a relatively high rate of population growth together with an increase in internal migration has transformed this rural agrarian society into a predominantly urban population. The economy is characterized by steadily declining output and high inflation. **Food Security Issues:** The country's infant mortality rate is one of the highest in Latin America, and estimates of the overall prevalence of malnutrition range from 20 to 40 percent. Social and education infrastructure is poor. **Food Aid Program:** Title II programs include an MCH program run by CARE which provides supplemental food rations, growth monitoring, and health education services to poor mothers and children in the poor western areas. Title II food is also donated to the WFP for its use in feeding programs in-country. **Related Dollar-Funded Programs:** Two strategic objectives are related to improved food security: "increased and diversified external trade" may affect access and availability, while "increased socioeconomic participation of lower-income groups" may affect access. Projects supporting these objectives total \$15.3 million in FY 1993 dollar resources. As part of the development of its program performance monitoring and evaluation system, the Mission is also supporting an analysis of the 1992 national income, expenditure and consumption survey in order to be able to determine whether poor people's incomes and diets have actually improved since the last survey was undertaken in the mid-1980s.

EL SALVADOR With an estimated population of 5.3 million and a land surface of 21,000 square kilometers, El Salvador is densely populated and primarily agricultural, with a per capita GNP of \$1,080. The social and political tensions resulting in civil war in the 1980s decimated economic systems and productive investments, and current policymakers strive to rebuild the economy and encourage growth. **Food Security Issues:** The reduction of absolute poverty is a key aspect of government strategy, as social indicators are among the lowest in the region. Over the medium term, the government will focus on expanding integrated primary health care and increasing both rural and urban employment. **Food Aid Program:** Title I supports price reforms, improved animal health, and improved agricultural production and marketing. Title II food and Section 416(b) commodities are donated to the WFP for use in their programs. **Related Dollar-Funded Programs:** Three strategic objectives relate to improved food security: "transition from war to peace" may affect access and utilization, "increased equitable economic growth" may affect availability and access, and "healthier, better educated Salvadorans" may affect utilization. Projects supporting these objectives total \$108.6 million in FY 1993 dollar resources.

GUATEMALA Agriculture dominates the economy of this 9.5 million person nation with per capita income of \$930. The country is characterized by a very uneven distribution of both land and income; more than half of the population lives in extreme poverty at the margin of the "money" economy. Guatemala's long-term potential is good, as it has abundant natural resources and a good physical location in the region.

Food Security Issues: National food availability is still a concern in Guatemala, and household food access is very much a constraint for many of the rural poor. Utilization is also a concern, especially among vulnerable groups such as children and pregnant and lactating women. Guatemala has relatively high child mortality rates and the rate of chronic malnutrition among children is the highest in the LAC region, higher, in fact, than the rates in most of

Africa and Asia. **Food Aid Program:** Title I supports fiscal and monetary reforms, price decontrol, improved animal health, and increased private sector involvement in commodity distribution and marketing. Title II programs include MCH feeding programs and urban FFW programs managed by CARE, CRS, FTC, and World SHARE that seek to improve food access among targeted poor through both direct rations and food wages. The FFW outputs of improved drainage and sewage systems have provided better sanitation and contributed to community health. Section 416(b) commodities and Title II food are also donated to the WFP for their use in food distribution programs. **Related Dollar-Funded Programs:** Two strategic objectives are related to improved food security: "increased private investment and trade" may affect availability and access, while "smaller and healthier families" may affect utilization. Projects supporting these objectives total \$18.2 million in FY 1993 dollar resources. A.I.D. is also evaluating the impact of non-traditional agricultural exports, which has been a major thrust of its agricultural development programs in the country, on the employment, incomes, consumption and nutrition of the small farmers that have participated in the programs.

GUYANA Two decades of economic mismanagement have made Guyana among the poorest counties in the LAC region, with an estimated per capita income in 1991 of \$290. The economic reforms that were initiated in 1988 to stabilize the country's finances, reduce the public sector's role in the economy and provide the private sector with investment and export incentives are being continued by the new Government. The country's economic future remains precarious, however, due to the extremely high levels of external debt (the external public debt is equal to five times the country's GDP and eight times its level of exports). The country's productive and social infrastructure has also deteriorated and the serious decline in wages and living standards since the mid-1970s led to a major migration of talented Guyanese to jobs abroad.

Food Security Issues: The deterioration in the Guyanese economy coupled with the country's high level of indebtedness has made the country reliant on food assistance to meet practically all of the wheat needs of its population for the first time in its history. The deterioration in the economy also pushed more people below the poverty line; official estimates are that 86 percent of the population were below the poverty line in 1989, and the accompanying deterioration in the provision of health services and environmental sanitation appears to be resulting in a deterioration of the health and nutrition status of the population, which historically has compared favorably with other countries in the Caribbean region.

Food Aid Program: Title II commodities are donated to the WFP for use in feeding programs. A one-year Title III program was signed in January 1993 as one of the first significant activities in A.I.D.'s newly resumed foreign assistance program to Guyana. Title III wheat imports will supply almost all the country's wheat need for 1993, and the local currencies generated will be used to help pay for some of the rehabilitation of the country's sea wall defenses and its drainage and irrigation systems, both of which are essential to getting more growth in the agricultural sector and in the economy as a whole. The Title III program has also required the Government to prepare several studies to identify the policy and programmatic changes needed to improve the drainage and irrigation system, land titling and registration and food security, policy changes that will be incorporated into the policy reform agenda developed for the follow-on program. This first-year program also supported the removal of restriction on wheat sales in the country which have dramatically reduced the prices consumers had to pay for wheat flour.

HAITI Haiti is the poorest nation in the Western Hemisphere, with a per capita GNP of \$370. The 6.5 million inhabitants live in a predominantly agricultural economy with declining rural incomes that fuel out-migration. Infant mortality is 117 per 1,000 live births, some 65 percent of adult Haitians are illiterate, and more than 30 percent of the adult labor force is unemployed. **Food Security Issues:** Three-quarters of the population live in the rural areas and depend on agriculture, the output of which has increased little since 1970. Physical production per capita has fallen steadily as increasing population pressure forces cultivation and destruction of marginal and fragile lands. **Food Aid Program:** Title II programs include an emergency feeding program through CARE that targets 300,000 children, pregnant and lactating women, elderly, and chronically ill who suffer from major food shortages. Regular Title II programs through ADRA, CARE, CRS and, until recently, International LIFELINE include MCH, FFW, and other feeding programs. This humanitarian effort seeks to protect the already fragile food security of the poorest while Haiti faces its current political and social challenges. Title II food is also donated to the WFP. The purpose of the recently approved Title III program is to sustain democratic government through: 1) increased efforts toward the attainment of national food self-reliance, defined as domestic production and capacity to import sufficient food to meet effective demand, 2) increased access to food by women and men in the most food deficient segments

of the population, and 3) improved social conditions in the health, nutrition and child survival sectors. Owing to the fragility and uncertainty of the present political environment, the FY 1993 P.L. 480 Title III program was designed for one year only. The preferred multiyear time frame may be addressed when conditions have stabilized. Related Dollar-Funded Programs: Two strategic objectives may potentially have a positive impact on food security: "broadened private sector led economic growth" and "strengthened human resources."

HONDURAS Honduras is a predominantly agricultural country just beginning to adjust to a more open economy. An import substitution policy supported by high trade barriers and extensive government intervention resulted in an inefficient manufacturing sector and agricultural production patterns which diverged from comparative advantage principles. Some economic progress has been made in the past two decades, but per capita GNP remains low at \$580, 40 percent of the population over 15 years of age is illiterate, 37 percent of children suffer from malnutrition, and about 75 percent of the population lives in poverty. A new administration took office in January 1990 and began to take the necessary policy steps to stabilize and restructure the economy, and recent policy reforms have helped support real GDP growth of 4.3 percent in 1992 (up from 2.2 percent in 1991). Agricultural production increased 6.3 percent in 1991, and then grew 2.9 percent in 1992 in spite of deteriorating international market conditions for coffee, Honduras' high-value export.

Food Security Issues: Per capita food production declined through the 1980s as economic problems worsened, and the percentage of households below the poverty line increased, driven by price inflation. Recent income distribution figures confirm that rural poverty is overwhelming, with over 90 percent of the households in the lowest income quintile living in rural areas, and 87 percent from the second-lowest income quintile also in rural locales. In addition to having trouble accessing sufficient food, poor households are likely to lack access to adequate health care and water/sanitation services. The result is relatively high levels of child malnutrition.

Food Aid Program: Title II programs include SF and MCH programs through CARE that seek to improve both access and utilization among target children and mothers, as well as an urban FFW program that targets very poor urban neighborhoods and employs many female workers and older males with few other sources of income. Anecdotal information suggests that SF rations have indeed increased school attendance. Title II food is also donated to the WFP in support of its programs in Honduras, and Section 416(b) food is provided to the government.

The multiyear Title III program (FY 1992-1994) provides commodities valued at \$11 million in support of the government's continuing efforts to reform agricultural sector policies and adopt key reforms in land tenure, price controls, and natural resources management, thus affecting both availability and access. The Title III local currencies are being used to support a variety of activities including the strengthening of private sector organizations designed to provide needed support to small farmers, strengthening the capacity for agricultural policy analysis, a food stamp program for mothers and children at risk of malnutrition, and improvements in rural infrastructure.

Title III resources provide balance-of-payments support and increase total food availability, and the policy reform agenda supported by Title III food and Economic Support Fund (ESF) dollar resources has already had a measurable impact upon the Honduran economy. Title III achievements to date have included: enactment of the Agricultural Modernization Law which reforms land tenure and improves land security, thus improving the well-being of thousands of small and medium-sized farmers and especially providing women equal treatment under the agrarian reform law; design of an environmental action plan and establishment and funding of a national environmental fund; and acceptance of a plan for decentralization of agricultural extension and research, and creation of an endowment fund for a private agricultural research foundation. The Honduran Government continues to work on other policy reforms, such as elimination of the physical strategic grain reserve in favor of a financial reserve fund, reduction of import duties on grain imports, and restructuring of the National Agrarian Institute and Honduran Forestry Development Corporation.

Related Dollar-Funded Programs: Three strategic objectives are related to improved food security: "increased agricultural production and exports" and "increased private trade and investment" may affect availability and access, and "healthier, better educated Hondurans" may affect utilization. Projects supporting these objectives total \$24.9 million in FY 1993 dollar resources. A.I.D. is planning to evaluate the impact of its food assistance and related dollar-funded programs at all levels of food security using information from a nation-wide survey, funded with Title III-generated resources, that is collecting a range of data on households, including statistics on their incomes,

employment, expenditures, diets, and the education, health and nutrition levels of their children. A.I.D. is also field testing a community-based monitoring system and related indicators for nutrition and food security.

JAMAICA Jamaica is one of the larger Caribbean island countries, with a population of 2.4 million growing at 1.4 percent and a per capita GNP of \$1,380. Jamaica is well-endowed with natural resources, has a relatively well-educated labor force, and is well-located for external markets. Public sector deficits and resource misallocations continue to constrain economic performance, which is far below its potential. Food Security Issues: Jamaica's social indicators have generally exceeded those of other countries in the region at similar levels of income, reflecting in part the allocation of public resources to health and education. Poverty has increased recently as a result of the continuing economic troubles. Food Aid Program: Title I supports monetary and fiscal policy reforms and provides for private sector marketing and distribution of commodities. Section 416(b) commodities are donated to the WFP for their use in feeding programs. Related Dollar-Funded Programs: Two strategic objectives relate to food security: "increased foreign exchange earnings and employment" may affect availability and access, while "healthier, smaller families" may affect utilization. Projects supporting these objectives total \$13.3 million in FY 1993 dollar resources.

MEXICO Mexico is a rapidly-developing nation of 90 million people with a per capita GNP of \$3,030, currently undergoing a comprehensive privatization, liberalization, and adjustment program designed to accelerate economic growth and diversification. A new Land Reform Act will most likely encourage land consolidation and outside investment in agriculture. Food Security Issues: The government plans to concentrate its effort on reducing poverty by increasing access to health services, education, and potable water and establishing a permanent safety net for the poorest. Deep cuts in social spending during the 1980s are being reversed; it has risen from 6.4 percent of GDP in 1990 to 9 percent in 1992. Inflation continues to erode household purchasing power, although food prices have risen slightly less quickly than overall consumer prices. An immunization program has already reached more than 90 percent of Mexico's 11 million children under five. A growth monitoring program focusing on pre-school children has begun. National rural surveys over the past 15 years point to an overall improvement in nutritional status, although the poorest Mexicans already suffering from malnutrition experienced deterioration in their nutritional well-being. Food Aid Program: Section 416(b) commodities and Title II food was donated to the WFP for use in regular feeding programs. Section 416(b) food was also provided to the government to be monetized and local currencies were used to support revitalization of the rural economy. Title II commodities also supported WFP protracted emergency feeding programs.

NICARAGUA Nicaragua is a country of 3.9 million people and a per capita GDP of \$460. Although the country is small and has a very high population growth (3.4 percent annually), it has good agricultural potential and a favorable climate. Economic health has deteriorated in the last 15 years, and the decline has caused sharp reductions in nutritional status. The country is beginning an economic stabilization program in the context of democratization, but it is plagued by intermittent civil and political strife, and policy shortcomings, inadequate infrastructure, and a heavy external debt burden continue to hamper the rebuilding process.

Food Security Issues: Per capita calorie supplies and food production both declined during the 1980s, and lack of foreign exchange made Nicaragua very dependent on food aid. Widespread poverty still exists throughout rural (86 percent) and urban (55 percent) areas. Poor households lack access to adequate health care and are likely to have inadequate water and sanitation facilities, especially in rural areas, with a resulting high level of child malnutrition (estimated at 22 percent).

Food Aid Program: Title II food is used in PVO programs including MCH and FFW activities making a transition between prior years' emergency feeding programs and the current focus on development-focused food activities. Under a MCH program, ADRA/Nicaragua monitored a group of 5,887 children (out of the 8,282 targeted children participating in the program) over a year's time. Program results showed that out of this group 786 (9.48 percent) children gained weight, 4,265 (51.48 percent) were maintained at their previous weight and 836 (19.09 percent) remained at risk for malnutrition. Title II food and Section 416(b) food is also donated to the WFP in support of its feeding programs.

The three-year (FY 1993-1995) Title III program (FY 1993 level, \$15.7 million) supports macro level policy reforms as well as sectoral reforms designed to improve private agricultural sector profitability and increase temporary employment, thus affecting food access and availability. The Title III program also supports efforts to

improve the coverage and delivery of health care, thus affecting utilization. Policy reform achievements which are expected under this program include: sale of Title III commodities at market-equivalent prices; revision of port charges and elimination of import handling charges; design and implementation of an agricultural price information system; decentralization of the government agricultural marketing parastatal in preparation for eventual privatization; and specific cost containment and cost recovery mechanisms for the national health care system. As part of the Title III program, A.I.D. had developed a detailed plan that will track changes in food security with specific indicators over the life of the program.

Related Dollar-Funded Programs: Two strategic objectives relate to improved food security: "increased competitiveness, diversification, and participation" may affect access and availability, while "improved maternal and child health" may affect utilization. Projects supporting these objectives total \$85.6 million in dollar resources. A.I.D.'s Office of Nutrition assisted the Ministry of Health in developing a national survey of iron and vitamin A deficiencies.

PERU The Peruvian economy in the early 1960s was considered to be one of the most promising in the region, but the past three decades have seen immense political and economic instability, to the point where 1990 per capita income was below that of 1963 while nominal prices had increased by a factor of 65 million. The increasing disintegration of the functioning economy and government was reflected in the expansion of terrorist activities and increase in informal sector activities in the late 1980s. Macroeconomic factors have improved dramatically since the economic reforms of the new government were initiated in 1990; initial gains included the reduction of inflation to single-digit monthly rates, a substantial reduction of the fiscal deficit, and a curtailment of policy-induced price distortions.

Food Security Issues: The economic disintegration that has accompanied the civil strife in Peru has eroded household incomes and decreased food availability, and poor people in both urban and rural areas lack access to food. According to a World Bank 1991 survey, 54 percent live in critical poverty without access to minimum levels of food, education, health care, and housing. Chronic poverty, which has traditionally affected large segments of the population in rural areas and especially in the highlands, also increased in the urban areas as the performance of the economy deteriorated, especially during the late 1980s, and more of the poor migrated to squatter slums in metropolitan areas. Peru also has one of the highest infant mortality and child malnutrition rates in the LAC region, with chronic malnutrition rates being particularly high. A social emergency program to provide direct food and health assistance to the poor has begun, and the government is designing a poverty alleviation strategy with priorities in health, nutrition, and education.

Food Aid Program: The Peru Title II program is the largest in the region and has been critically important in maintaining social stability as well as basic nutrition levels, particularly in the urban areas of the country. Title II programs include CARE community feeding programs that improve food access for urban and peri-urban poor, and FFW activities that include agroforestry projects, sanitation infrastructure, and construction of local health centers. PVOs, such as ADRA and two local NGOs (CARITAS and PRISMA), also manage child feeding programs in the poor rural highlands that combine food rations, health monitoring, and community and microenterprise activities including family garden development. The programs enjoy a high community participation rate resulting in a 50 percent nutrition improvement in target children, and one innovative PRISMA program (\$22 million in FY 1993) links child feeding through community centers to home garden development. Title II food is also donated, along with commodities from Section 416(b), to the WFP in support of its programs in Peru.

The multiyear Title III program covers FY 1993-1995, providing food imports to allow the country to maintain aggregate food availability without adding to foreign debt, thus improving national availability. Local currencies generated by Title III sales support policy reforms in agricultural imports, marketing, and exports that seek to affect food availability and access through market systems. Policy reform benchmarks and progress to date include: donor-government agreement on reductions in variable surcharges for agricultural commodities (especially wheat), a reform which is still being negotiated; privatization of the National Input Marketing Enterprise to improve the transparency and efficiency of agricultural product and input markets, an action which has been announced through supreme decree and is now underway; and preparation and application of regulations enforcing the Anti-Monopoly Law. Title III also supports a range of policy studies and study tours designed to develop government support for future actions in promoting agricultural exports and improving agricultural technology transfer.

Related Dollar-Funded Programs: Two strategic objectives are related to improved food security: "sustainable economic growth led by the private sector" may affect availability and access, and "improved health status through access to quality primary health care" may affect utilization. Projects supporting these objectives total \$198 million in FY 1993 dollar resources.

SURINAME Suriname is a coastal nation of 430,000 people. In spite of having one of the highest per capita incomes in the region, Suriname's economy suffered in the 1980s as political unrest resulted in decreased production of the valuable mining products that earned 75 percent of total export revenues. The resulting scarcity of foreign exchange severely affected standards of living because Suriname is very dependent on imports for food and basic goods. **Food Security Issues:** Household incomes were eroded by growing mining sector unemployment in the late 1980s; agriculture and manufacturing also experienced declining production during that time period. The highest nutritional risks are observed in women and children of East Indian and Indonesian ethnicity who immigrated from other formerly Dutch colonies. **Food Aid Program:** Title I provides wheat, feedgrains, and vegetable oil to support pest eradication and to develop policies to increase international foreign exchange reserves and reform exchange rates.

E. NEAR EAST

JORDAN Economic trends in Jordan are related largely to the country's role as a service provider for its oil-rich neighbors; more than 60 percent of the GDP is generated by the service sector. Aside from its highly productive human resource base, Jordan has very few natural resources other than a few minerals. Less than 5 percent of its land is arable, and water is an increasingly scarce resource. Jordan bore a very heavy burden from the Gulf War; losses were an estimated 70 percent of national income in 1991, and inflation soared to double-digit levels. Jordan's food security situation has clearly deteriorated in the last several years.

Food Security Issues: The ongoing economic adjustment program is supported by a parallel social and poverty alleviation program focusing on increasing employment and assisting the poor. Jordan had already made substantial improvements in nutrition status before the Gulf War; the prevalence of child malnutrition in 1975 was 17.4 percent, but by 1990 it had dropped to 6.4 percent, with per capita calorie availability of approximately 2,704 calories per day. Reports now indicate that nutritional deficiencies are new and growing.

Food Aid Program: A Title I program provides wheat in support of programs that protect the vulnerable poor from adverse price effects during economic adjustment and support market prices for inputs and outputs. Private sector transporters and processors handle the Title I commodities.

Related Dollar-Funded Programs: Country objectives include "increased foreign exchange earnings from light industry, agribusiness, and tourism," thus addressing food access as well as availability through increased incomes. A program focus on improving water conservation and efficiency of use will affect production and availability of food commodities. The National Agricultural Development project is helping to institutionalize a national system of agricultural research and technology transfer and thus stimulate agricultural production. The Agricultural Marketing Development project is improving marketing efficiency by establishing a policy framework to encourage farmers and agricultural entrepreneurs.

LEBANON This coastal Mediterranean nation of 3.3 million is a formerly thriving and diversified economy that has been devastated through years of war and civil ethnic strife. Many thousands of educated Lebanese have fled in search of job opportunities around the world, and those who remain are faced with a dilapidated physical and economic infrastructure.

Food Security Issues: Food availability is a food security concern because domestic production systems have been continually undermined by conflict, and household food access is chronically insecure because employment and incomes are tenuous.

Food Aid Program: The Lebanon Relief Assistance project includes food distribution activities that support a large Title II emergency food aid program (\$6.58 million in FY 1993) managed by Save the Children Federation. This program is scheduled to be phased out this year due to recent improved economic and political stability. The program was designed to provide income support to families most vulnerable to the economic crises, while ensuring

their access to staple foods. The rations provided an estimated 15 percent of per capita daily nutritional requirements, valued at approximately 9.3 percent of daily income at the minimum wage. Food security issues such as access still affect small pockets of the population. Section 416(b) commodities are also donated.

Related Dollar-Funded Programs: Program guidelines include relief assistance to vulnerable groups and assistance in rehabilitation of the country's economic systems and infrastructure.

MOROCCO Few developing countries can match Morocco's recent economic performance, as it combined 4 percent yearly growth with a strong stabilization program, reduced inflation, and reduced debt. The country of 25 million has abundant natural resources and 1991 per capita income of \$1,030 can grow substantially if economic development continues.

Food Security Issues: Food security indicators for Morocco show a clear improvement over the past several years. However, uneven income and wealth distribution and the large number of rural poor remain an obstacle to development, and indicators such as infant mortality and adult illiteracy are troubling. Child malnutrition was estimated at 19.3 percent for 1975, whereas a 1987 survey revealed a rate of 11.8 percent. Daily per capita calorie supplies were 92 percent in 1965, and had climbed to 125 percent by 1988-1990.

Food Aid Program: A Title I program provides wheat and edible vegetable oil in support of improved crop research, accelerated livestock sector development, and promotion of private sector marketing and distribution systems. Title II commodities were distributed by the WFP in its regular programs, while Section 416(b) food was also provided to the WFP for distribution. A CRS program using FY 1992 Title II food completed MCH activities in 1993 and is phasing out.

Related Dollar-Funded Programs: The Morocco Agribusiness Promotion project seeks to increase the capacity of private agribusinesses to produce, package, and market a range of food commodities. The Dryland Agriculture Applied Research project seeks to provide technologies to improve farmer productivity. The Agronomic Institute project helps create a system of higher agricultural education to improve agricultural technology. The Planning, Economics, and Statistics for Agriculture project seeks to improve agricultural data and statistics.

TUNISIA Tunisia is a country of medium size and modest resources that has achieved economic and social progress without excessive debt. Tunisia's progress has been diversified and broad, with a 1991 GNP per capita of \$1,500, rising life expectancy and literacy, and falling infant mortality and population growth. Tunisia was seriously affected by the Gulf War, but tourism began to recover in 1992.

Food Security Issues: Tunisia's food security constraints are primarily access and utilization, although trends are encouraging; per capita calorie availability was 119 percent of requirements in 1985 and rose to 131 percent (3,080 calories) by 1988. The child mortality rate was reduced from 103 per 1,000 live births in 1980 to 58 in 1991. The agricultural sector currently produces one-fifth of total GDP and employs 26 percent of the labor force; the government regards increased agricultural production as an important economic objective as it works to reduce grain imports, increase export earnings, and halt internal migration from the countryside into the urban areas.

Food Aid Program: Title I wheat was programmed in support of improved agricultural infrastructure and continued agriculture privatization, reduced animal disease, and expanded youth employment. Section 416(b) commodities were provided to be monetized and local currencies were used to support revitalization of the rural economy.

WEST BANK/GAZA The economic conditions in these occupied territories, already declining before the Gulf War, have continued to deteriorate due to reduced private remittances, influxes of involuntary returnees from Gulf States, decreased financial support for private enterprise development and employment, and disruptions in traditional export markets.

Food Security Issues: The occupied territories do not suffer extensively from chronic food insecurity, except for specific areas of poverty, but transitory food insecurity is indeed a problem — one which has been exacerbated by the economic decline in the past several years. Widespread malnutrition does not exist in the West Bank and Gaza, and food is available in the market, but individual financial and geographic access to this food is limited for some people and specific nutritional deficiencies are evident in certain segments of the Palestinian population.

Food Aid Program: Title II food assistance is provided mostly to non-refugee recipients in the West Bank and Gaza through CRS programs including MCH, FFW, and direct family and institutional distribution. The Israeli Government intermittently provides "matching" food distributions and cash stipends.

Related Dollar-Funded Programs: Strategic objectives include "increasing the marketed production of agricultural and manufactured goods," which would increase food availability. The Development Assistance IV project seeks to improve agricultural marketing and reduce production costs. The Agriculture Development and Export project seeks to increase the export of agricultural produce from the Occupied Territories.

YEMEN (ROY) The Republic of Yemen is a country of 12.1 million people with an estimated 1991 per capita GNP of \$520. Yemen suffered financially from its stand with Iraq in the Gulf War, when some 1 million Yemeni workers had to return from lucrative jobs in Saudi Arabia where they had been generating substantial remittances for families at home. On April 27, 1993, fair and open multiparty parliamentary elections were held — a first among Arabic Peninsula States.

Food Security Issues: The infant mortality rate dropped from 175 per 1,000 live births in 1970 to 109 in 1991, while the child mortality rate dropped from 236 in 1980 to 182 in 1991. Approximately 30 percent of children are malnourished. Daily per capita caloric availability was estimated at 93 percent of requirements in 1985.

Food Aid Program: Title I provides rice in support of expanded protection of the physical environment, a market information service, and training in agricultural marketing. Title II food is provided to the WFP in support of its regular distribution programs in Yemen.

Related Dollar-Funded Programs: A 1991-1992 reduction in development assistance funding from \$22 million to \$3 million included an orderly closeout of all prior agricultural projects. A.I.D.'s strategy in Yemen is now entirely focused on health and family planning, seeking to improve nutritional status of vulnerable groups, especially children, by improving utilization.

F. NEW INDEPENDENT STATES (NIS)

The countries in this region have food aid programs which typically are quite different from those in the more traditionally-labelled "developing" countries. Of the NIS, ten nations received shipments of U.S. food commodities under the programs described in this report. All of those food aid resources were programmed through the USDA-administered Title I, Section 416(b), and Food for Progress programs. In addition, these countries received assistance in the agricultural sector from a range of other U.S. Government programs, including the Farmer-to-Farmer program's Special NIS Initiative which focuses American agricultural and agribusiness expertise on the NIS countries through a series of volunteer and technical assistance efforts. The NIS Task Force within A.I.D. continues to monitor food security concerns within each country, including highly vulnerable areas such as Tajikistan and the Transcaucasus (Armenia, Georgia, and Azerbaijan.)

An important note: most NIS countries receiving food assistance do not yet have data available over time because they were formerly measured as part of the USSR. The major international development organizations are now working to develop and implement data gathering and monitoring systems which will generate this much-needed data in the future.

ARMENIA Armenia is a country of 3.3 million people with a relatively industrialized, trade-dependent economy and a highly skilled labor force. More than 65 percent of Armenians live in urban areas. Armenia is rich in strategic minerals, but is dependent on external trade for energy supplies and raw materials; and ethnic tensions in the region have led to a breakdown in trade flows which has put severe stress on the economy, depleted food stocks, and left the country vulnerable to food insecurity. GNP in 1991 was estimated at \$2,150 per person (\$1.00 = 500 rubles), and is thought to have fallen by as much as 68 percent since 1988. The ruble continues to lose purchasing power.

Food Security Issues: Purchasing power has declined as market liberalization has allowed prices to rise; real wages have fallen dramatically in the face of hyperinflation, and it is estimated that 75 percent of household income is now spent on food and that over 20 percent of the population falls below the poverty line. Access to food imports from

CHAPTER IV

other republics has dropped as supply lines have been disrupted. The agricultural sector has made some modest gains since 1990 when large state farms were turned over to individual farm workers, but there are still critical shortages of fuel, electricity, and inputs. The livestock sector has suffered during the privatization process and the trade disruptions because of a shortage of animal feed and a lack of expertise in animal husbandry and veterinary services. Domestic production meets less than 24 percent of the country's milk and dairy needs, and mothers and children are particularly vulnerable to the critical shortage of infant food.

Food Aid Program: Wheat, wheat flour, and rice from Title I program levels, and dry milk products and wheat purchased by the CCC, were provided under Food for Progress. Some Section 416(b) commodities were monetized with local currencies to support revitalization of the rural economy.

Related Dollar-Funded Programs: Through the Farmer-to-Farmer Program Special Initiative, agricultural specialists from VOCA and ACDI provide technical assistance to farmers, cooperatives, government agencies, and farm commodity groups, in support of the development of private farming agribusinesses and agribusiness systems.

BYELARUS Byelarus is a country of forests and marshlands with ample supplies of peat bogs used for energy. More than 65 percent of the 10.3 million people live in urban areas, and the country has a broad industrial and agricultural base and high levels of education. Byelarus relies heavily on regional trade and has suffered during the transition since the dissolution of the USSR.

Food Security Issues: An increasing number of families are dependent on government subsidies to keep them out of extreme poverty, as the structural adjustment towards a market system causes transitional unemployment in many sectors. Average household incomes are dropping as prices are rising rapidly. The government attempts to protect the vulnerable groups in the population through targeted programs.

Food Aid Program: Title I supports improved agricultural production and private agricultural enterprises. Section 416(b) commodities were provided to be monetized and local currencies were used to support revitalization of the rural economy. Commodities purchased by the CCC, including soybean meal, wheat, rice, vegetable oil, and wheat flour, were provided under Food for Progress.

Related Dollar-Funded Programs: Through the Farmer-to-Farmer Program Special Initiative, agricultural specialists from VOCA are providing technical assistance to farmers, cooperatives, government agencies, and farm commodity groups, in support of the development of private farming agribusinesses and agribusiness systems.

GEORGIA Georgia is a country of 5.5 million people with a broad industrial and agricultural base and high levels of education; per capita GNP was estimated as \$2,120 in 1990. Ethnic strife is currently complicating the transition to a market-based economy. Georgia has since issued its own currency and inflation is estimated at 2,000 percent for 1993.

Food Security Issues: Average food prices increased by 1,500 percent from early 1992 to early 1993, while real wages and pensions fell 40 and 35 percent respectively. Government budget constraints and payment disputes with Russia have resulted in delayed and reduced pensions. Per capita consumption of basic foods is estimated to have dropped by as much as 50 percent since 1989. Government agricultural officials say that the most serious challenges to the 1993 harvest were fertilizer shortages during the season and a fuel shortage for the harvest. Until recently, Georgia's health indicators were comparable to or better than averages from other parts of the region, but since 1989 health services and access to basic drugs and supplies have deteriorated, and curative care is low quality. Pregnant women, mothers, and young children are especially at risk; market prices for infant foods are rising rapidly, and the country's milk production is estimated to meet only 20 percent of Georgia's needs. In addition, there are an estimated 106,000 to 145,000 displaced persons and refugees in Georgia who need targeted assistance.

Food Aid Program: Title I wheat and additional commodities purchased by CCC were provided under Food for Progress. Some Section 416(b) commodities were provided to be monetized and local currencies were used to support revitalization of the rural economy. These commodities were critical in maintaining minimum levels of staple foodstuffs during the summer and early fall of 1993.

Related Dollar-Funded Programs: The Farmer-to-Farmer Program Special Initiative is also providing technical assistance to farmers, cooperatives, government agencies, and farm commodity groups in support of the development of private farming agribusinesses and agribusiness systems.

KYRGYZSTAN Kyrgyzstan is a mountainous nation of 4.4 million people in the Central Asian region of the CIS. Agriculture is the largest sector of the economy, producing cotton and meat in addition to sugar, fruits, and vegetables. The transition to independence and resultant loss of subsidies, along with sharp price increases, have required increases in the government's social assistance payments and food subsidies.

Food Security Issues: Social assistance payments have not increased proportionately with price increases, and household purchasing power is continually eroding. Government expenditures on health have been cut as budget constraints tighten. Family consumption and children's protein-calorie intake have decreased as prices rise.

Food Aid Program: Section 416(b) commodities were provided to be monetized and local currencies were used to support revitalization of the rural economy. In addition, Title I wheat was provided under Food for Progress.

MOLDOVA Moldova is a densely populated nation of 4.4 million people with more than 47 percent of the population residing in urban areas. Moldova's economy resembles that of the Central Asian republics, and agriculture accounts for slightly more than 33 percent of the labor force.

Food Aid Program: Title I supports policy reforms encouraging the development of the processing sector, establishing a new credit system for private farmers, and developing the livestock sector. Section 416(b) commodities were distributed in direct feeding programs, and were provided to be monetized. Local currencies were used to support revitalization of the rural economy.

Related Dollar-Funded Programs: Through the Farmer-to-Farmer Program Special Initiative, agricultural specialists from ACDI provide technical assistance to farmers, cooperatives, government agencies, and farm commodity groups, in support of the development of private farming agribusinesses and agribusiness systems.

RUSSIA Russia has the largest land mass of any country in the world, with a population of 148 million spread out among 16 autonomous republics and 15 autonomous regions and districts throughout 17 million square kilometers. The economic dislocations resulting from the difficult transition to a market-based economic system have caused massive increases in food prices and constant food shortages, but Russia is rich in resources and has the potential to develop a broad-based and robust economy.

Food Security Issues: Some basic foods are in shortage or are not available at all; many Russians have been forced to use their savings on food, and poor people survive entirely on bread, milk, and potatoes or buckwheat. The most vulnerable social groups in this situation are children, the elderly, and those on fixed incomes from the state. The government is working to develop a comprehensive system of "social safety nets," but budget constraints are severe. The central government lacks foreign exchange for commercial imports, and is depending upon concessional grain sales and grants for large supplies.

Food Aid Program: Section 416(b) commodities were distributed in direct feeding programs, and were provided to be monetized. Local currencies were used to support revitalization of the rural economy. CCC purchases of a wide range of commodities were provided under Food for Progress.

Related Dollar-Funded Programs: A.I.D. is providing technical assistance in the design of a targeting, monitoring, and evaluation plan for food distribution systems throughout the Russian Federation. USDA and A.I.D. are working together to promote the development of agribusiness in Russia, targeting niches in the agricultural sector with potential for generating both increased incomes and expanded employment. Through the Farmer-to-Farmer Program Special Initiative, agricultural specialists from a range of U.S. organizations — VOCA, ACDI, Tri Valley Growers, Winrock Alliance of Agricultural Volunteers (WAAV), Land O'Lakes, and the Citizens' Network Agribusiness Alliance (CNAA) — provide technical assistance to farmers, cooperatives, government agencies, and farm commodity groups, in support of the development of private farming agribusinesses and agribusiness systems.

TAJIKISTAN Tajikistan is a mountainous country of 5.3 million people in the Central Asian region of the CIS, with a well-educated populace whose literacy rate is quite high. The country is primarily rural, producing cotton for export, and it is one of the poorest republics in the CIS. Traditionally relying upon imports for oil, gas, and food, Tajikistan now must rely upon barter with other CIS republics as its trading systems collapsed during the transition from central control to a market system.

Food Security Issues: Tajikistan is undergoing a civil war. Southern and eastern sections are cut off from the central and northern areas. Over 500,000 persons are displaced and 250,000 persons are isolated from the rest of the country. Price inflation has increased market prices of basic foodstuffs dramatically while household incomes have not increased proportionately. Cotton, the country's traditional export crop, continues to crowd out food production in competition for scarce water and pesticide resources.

Food Aid Program: Title I provides commodities in support of private agribusiness, encouraging the participation of private sector cooperatives in processing the Title I commodities. Section 416(b) commodities were distributed in direct feeding programs. CCC purchases of wheat flour and dry milk were provided under Food for Progress.

Related Dollar-Funded Programs: Through the Farmer-to-Farmer Program Special Initiative, agricultural specialists from WAAV provide technical assistance to farmers, cooperatives, government agencies, and farm commodity groups, in support of the development of private farming agribusinesses and agribusiness systems.

TURKMENISTAN Turkmenistan borders the Caspian Sea, with ample river and sea transportation channels; the country is rich in mineral resources and has ample supplies of natural gas. The population of 3.6 million is 53 percent rural, and Turkmenistan is a major producer of cotton for export. Natural gas and oil are also exported, but the economy relies heavily on imports for basic commodities.

Food Security Issues: Urban dwellers with no land for home gardens and fixed-income families are being adversely affected by the slow transition to a market economy. The government is working to establish support programs including basic staples rations for the at-risk population. More than 80 percent of families living on collective farms are living below the poverty line.

Food Aid Program: Title I provides wheat in support of development of the milling and baking industry, development of the food processing sector, and creation of a loan fund for private farmers. Section 416(b) commodities were monetized and local currencies were used to support revitalization of the rural economy.

Related Dollar-Funded Programs: Through the Farmer-to-Farmer Program Special Initiative, agricultural specialists from WAAV provide technical assistance to farmers, cooperatives, government agencies, and farm commodity groups, in support of the development of private farming agribusinesses and agribusiness systems.

UKRAINE Ukraine has a population of 51.8 million people, 67 percent of whom live in urban areas. The country has some of the richest land of the former USSR, and its diversified economy includes substantial agricultural production. This potentially robust economy has suffered from the dissolution of the intra-republic trading system and the difficult currency transition.

Food Security Issues: Prices for food and supplies have soared in state controlled shops, where food is scarce, and have risen even higher on the open market, where most households must go for provisions. Household purchasing power is rapidly eroding as incomes fail to keep pace with price increases.

Food Aid Program: Title I provides corn in support of technical training in agriculture, revitalization of the agricultural sector, and increased private sector access to commodities. Section 416(b) commodities were distributed in direct feeding programs. CCC purchases of corn and soybeans were provided under Food for Progress.

Related Dollar-Funded Programs: Through the Farmer-to-Farmer Program Special Initiative, agricultural specialists from a range of U.S. nonprofit organizations — VOCA, ACIDI, WAAV, Land O'Lakes, and CNAA — will provide technical assistance to farmers, cooperatives, government agencies, and farm commodity groups, in support of the development of private farming agribusinesses and agribusiness systems.

UZBEKISTAN Uzbekistan is an agrarian country of 20.3 million with the majority living in rural areas. The economy is relatively undeveloped and remains heavily dependent on external trade, and therefore is suffering from the disruption of traditional trading systems with other ex-USSR republics. The primary industry is cotton production and export, which accounts for more than 65 percent of the republic's gross output.

Food Security Issues: More than 70 percent of the arable land in Uzbekistan is devoted to the cultivation of cotton, due to the historical emphasis by the USSR on using Uzbek cotton to earn hard currency.

Food Aid Program: Section 416(b) commodities were distributed in direct feeding programs.

Related Dollar-Funded Programs: Through the Farmer-to-Farmer Program Special Initiative, agricultural specialists from WAAV provide technical assistance to farmers, cooperatives, government agencies, and farm commodity groups, in support of the development of private farming agribusinesses and agribusiness systems.

G. COUNTRIES RECEIVING U.S. FOOD ONLY THROUGH WFP

These 24 countries receive U.S. food assistance only through the mechanism of U.S. donations to the WFP, although in some of these nations U.S. dollar-funded development assistance plays a significant role.

AFGHANISTAN Afghanistan is one of the world's poorest countries, with an estimated per capita GNP of \$280. Twelve years of a violent and costly civil war, exacerbated by external intervention, have displaced 2 million Afghans in-country, driven 6.6 million away as refugees, and largely destroyed the country's productive systems. Reliance upon aid for basic needs doubled the food import dependency ratio between 1970 and 1990. **Food Security Issues:** Availability, access, and utilization are all severe constraints. A dysfunctional economy inhibits commercial imports and investment in domestic production, while dilapidated marketing systems and civil strife further reduce opportunities for food production and other income generating activities. Per capita calorie availability has dropped from 90 percent of daily requirements in 1965 to 72 percent in 1990. The prevalence of child malnutrition has grown from an estimated 19 percent in 1975 to 40 percent in 1990. **Food Aid Program:** An ongoing Title II program now administered by the WFP uses U.S.-donated food in FFW programs.

BHUTAN Bhutan is a small landlocked mountain kingdom that remained almost unconnected to the industrializing world until the late 1950s. Major sectors include agriculture, forestry, and hydropower, and the economy is closely connected to India's. A surge in hydropower and industry helped fuel growth in the 1980s, although per capita GNP remains low at an estimated 1991 level of \$180 per capita. **Food Security Issues:** Since 1960, the government has brought basic health care to almost everyone, even in the remote villages, with a special focus on women and children. Infant mortality rates have dropped from 203 per 1,000 live births in 1960 to 133 in 1991, while under-five mortality rates dropped from 324 to 205 in the same time period. Daily calorie supplies per capita were estimated to be 123 percent of requirements in 1990. **Food Aid Program:** Title II food commodities are donated to the WFP for use in its food distribution programs in Bhutan.

BOTSWANA Although Botswana enjoys an impressive level of income and growth rate, this is due mostly to diamond mining and does not reflect the generally poor distribution of income within the country. Many people live at or near subsistence levels with high population growth and low employment. **Food Security Issues:** Botswana's arid climate makes it highly dependent on imported food and at risk of droughts, and the cultural dependence on cattle production creates a strain on the arid environment. However, Botswana has well-developed early warning and disaster response systems, and thus it did not suffer widespread famine during the 1992-1993 drought as was feared. **Food Aid Program:** The WFP implements regular programs in Botswana using commodities including Title II food donated by the U.S. **Related Dollar-Funded Programs:** Agricultural research is being directed toward drought-tolerant varieties and techniques that improve soil moisture retention in efforts to stabilize and increase domestic production. Policy reforms are intended to stimulate private sector employment and boost incomes.

BRAZIL Brazil experienced a striking drop in poverty during the 9 percent annual economic growth phase in the 1970s, but these gains stopped when incomes stagnated in the 1980s (exacerbated by rising population). Indicators of social welfare are particularly poor in the rural northeast. **Food Security Issues:** Per capita calorie availability has risen from 107 percent of daily requirements in 1985 to 114 percent in 1990, while child mortality continues

to decline when measured at a national level. Food access and utilization are concerns in particular rural areas of poverty. Food Aid Program: Title II commodities are also channelled through WFP to needy families.

BURUNDI Burundi is a small country largely dependent on coffee production by smallholders. Longstanding tensions between the two major ethnic groups continue to threaten both political reform and much-needed structural adjustment of the economy. Food Security Issues: Food security indicators for Burundi show a clear deterioration in the past several years. With a high population density and growth rate, Burundi is starting to move from being self-sufficient in food to needing more imports to meet calorie and protein requirements. Half of the urban population and most of the rural population are below the absolute poverty line. Food Aid Program: The WFP implements feeding programs using Title II commodities donated by the U.S. Related Dollar-Funded Programs: Increased agricultural production is being fostered through small-farming systems research. Expansion of employment through development of small and medium-sized enterprises, increased exports, and market towns is targeted in order to increase incomes.

CENTRAL AFRICAN REPUBLIC (CAR) Given the CAR's small population, plentiful land, good climate, decent soils, dense forests, and mining resources, future development prospects are bright. The limiting factors have been poor economic policies that have discouraged appropriate investment, nationalized enterprises, drought, declines in international commodity prices, and recent political instability. Food Security Issues: With health care services and most government attention centered on urban areas, rural malnutrition and poverty is rampant. Despite the CAR being self-sufficient in food production, deteriorating incomes have increased poverty especially among women. Food Aid Program: The WFP distributes Title II food commodities in regular feeding programs.

COLOMBIA Colombia's population of 32.3 million includes more than 20 million living in urban areas. Solid economic growth of 4.5 percent per year, plus a steady reduction in population growth, has facilitated improvements in social conditions, although poverty remains a critical problem in some areas. Natural resources are plentiful, the work force is literate and skilled, and the country benefits from sound macroeconomic management. Food Security Issues: National food availability is not considered a serious food security constraint; household food access and individual utilization are targeted as the primary food security issues of concern. Government programs currently focus on vulnerable children and mothers in the poorest 20 percent of the population. Food Aid Program: Title II food is donated to the WFP for use in their food distribution programs in Colombia.

COMORO ISLANDS A remote group of islands with limited natural resources and a dependency on export crops (vanilla, cloves, and perfume oil) with highly variable world prices, the Comoro Islands face major problems in diversified economic development. Tourism is slowly developing. Food Security Issues: Due to a scarcity of arable land, rudimentary production techniques, and an inadequate marketing system, local food production cannot meet requirements. Thus, the Comoro Islands are highly dependent on food imports especially for rice and meat. Food Aid Program: The WFP distributes Title II food commodities in regular feeding programs.

CONGO Although the Congo has one of the highest GNPs in Africa, the economy is virtually completely dependent on oil exports and is vulnerable to world oil price fluctuations. Overambitious government investment and employment programs have left the country in debt and have created a growing urban population with impractical educations and few job opportunities. Food Security Issues: Government policy has been biased away from rural areas, leaving pockets of rural poverty and malnutrition. With the government as the main employer in urban areas, wage rates and actual wage payments are dependent on political will and oil receipts. Food Aid Program: Title II food is contributed to the WFP programs in-country.

DJIBOUTI As a city-state, Djibouti has limited natural resources, but its strategic position on the Horn of Africa provides income from re-export of consumer goods and use of port facilities by other nations. Although it has one of the most liberal economic regimes in Africa, a high wage and cost structure has limited competitiveness. Food Security Issues: Refugees from Ethiopia and Somalia have been welcome despite recent political insurgency by the Afar tribe against the Issa-dominated government. Despite a decent GNP per capita, skewed income distribution means most people have poor nutrition, low health standards, and low life expectancy. Food Aid Program: Title II commodities help support WFP regular programs and provide emergency refugee assistance through the WFP.

EGYPT Egypt's population of 54 million, growing at 2.2 percent annually, ranks as the largest in the region. About 54 percent of the people live in the less than 3 percent of the land that is arable and exceptionally productive.

In spite of changes in policy, about half of the total GDP is dominated by the public sector. Although poverty remains a serious problem, malnutrition is not as widespread as in other countries with similar income levels. **Food Security Issues:** National availability has been achieved primarily through imports of wheat. A relative decline in agricultural production in the 1970s and 1980s resulted in a high dependency on food aid and commercial imports. Growth rates for crops liberalized under policy reforms beginning in 1987 far exceeded overall agriculture sector performance; production of wheat, rice corn, and berseem clover increased by 59 percent between 1986 and 1992, and high-value exports such as citrus and vegetables also rose. From 1978 to 1988 the prevalence of underweight children fell from 21 percent to 14 percent. USAID/Egypt estimates that A.I.D. family planning and public health interventions saved the lives of 580,000 children from 1980 to 1990. **Food Aid Program:** In FY 1993, Title II food and Section 416(b) commodities were donated to the WFP in support of its regular food distribution activities in Egypt. Historically, Egypt has also received large shipments of food aid through concessional sales. **Related Dollar-Funded Programs:** One of the strategic objectives includes "increased production, productivity, and incomes in the agricultural sector." The National Agricultural Research project contributed to significant increases in production of rice and wheat, increasing food availability. The Agricultural Production and Credit Support project supports reduced government controls in production, marketing, and processing.

IRAQ Iraq is an upper-middle-income country whose economy and physical infrastructure has been devastated — first by a decade-long war with neighboring Iran, and then by a costly battle against a broad-based alliance after Iraq invaded its smaller neighbor Kuwait. Estimates of the 1990 GNP per capita are roughly \$2,340 for this oil-rich country of 18.6 million people. **Food Security Issues:** For the majority of the Iraqi population, food insecurity has been a transitory war-induced phenomenon rather than a case of chronic poverty-driven hunger. However, the 12 years of conflict, and the ongoing restrictions on Iraqi sales of oil for export, have created circumstances in which urban and rural poor are sometimes short of food. Severe malnutrition, unknown in Iraq before the Gulf War, is spreading among the poorest people in the Basra area, where prices have soared beyond the reach of the lowest paid workers. Most significantly affected by circumstances in Iraq are the Kurdish refugees still fearful of mistreatment by the Iraqi Government; relief workers report that thousands of Kurdish children are suffering from malnutrition. **Food Aid Program:** Title II commodities are donated to the WFP in support of its refugee feeding programs.

LESOTHO A small, mountainous country, completely surrounded by South Africa, Lesotho has few resources except people and abundant water. A large hydro-electric project under construction is expected to bring income from South Africa. Approximately 40 percent of the male labor force is employed in South Africa. Compared to excellent economic growth rates in the earlier years of structural adjustment, recent GNP growth has been disappointing. **Food Security Issues:** Despite Lesotho's abundant water, very little of it is currently available for irrigation within the country, and thus the recent droughts have caused a direct reduction in agricultural output. Rainfall has even been insufficient to keep small home gardens going. Repatriation of Basotho miners is accelerating as South Africa faces its own employment problems, so many households have less income available to buy imported food. **Food Aid Program:** Title II food commodities are donated to the WFP in support of their regular food programs in Lesotho. **Related Dollar-Funded Programs:** Production of high-value crops (vegetables, fruits) expanded before the drought, reducing imports and increasing availability at lower prices. Production expanded for fodder and for other high-value crops, increasing farmers' incomes. Improved rangeland management seeks to increase the sustainability of livestock and resultant wool production for income, although results have been limited thus far by incomplete adoption of necessary policy reforms.

MALAWI Despite impressive progress in macroeconomic development indicators and a pragmatic approach to fiscal management, Malawi continues to experience widespread poverty and malnutrition. Due to the Mozambican war, Malawi, as a landlocked country, lost its most efficient trade routes through Mozambique and received a large influx of refugees as well. **Food Security Issues:** Malawi is still recovering from 60 percent crop losses during the 1992 drought, Mozambican refugees continue to stress food supplies, and the division between estate productivity and smallholder agriculture continues to exacerbate skewed income distribution in the rural sector. **Food Aid Program:** Title II food commodities and Section 416(b) food are provided to the WFP for emergency programs designed to provide relief for Mozambican refugees and direct feeding for drought victims. **Related Dollar-Funded Programs:** Smallholder purchases of high-yielding maize seed and fertilizer have increased significantly, indicating a good rebound in maize production from the drought years if the rains cooperate. Efforts to increase child spacing are expected to improve maternal health. Policy reforms allowing smallholders to grow burley tobacco, and private traders to market it, have increased cash flow for farmers and traders in rural areas.

MAURITIUS Mauritius is an island country with incomes and social standards that greatly exceed most other African countries. The country has successfully diversified away from sugar production for export to manufactured exports and tourism. Along with its democratic government and competitive spirit, this diversification leads the way for Mauritius' continued growth. Food Security Issues: Nutritional status is better than for most African countries with food security a major problem for only the 12 percent of the population below the absolute poverty line. Food Aid Program: Title II food commodities are distributed by the WFP in their regular food programs.

NEPAL Nepal remains one of the poorest countries in the world, with a per capita income of about \$180 and social indicators well below the average for the region. An estimated 8 million of the nation's 19 million people live in absolute poverty, and population growth of 2.6 percent per year places increasing pressure on the limited and fragile natural resource base. Agriculture is half of GDP and the primary source of employment, and recent economic reforms are reportedly contributing to strong agricultural performance. Food Security Issues: Household food access is a primary concern; an estimated 55 percent of the urban population, and 61 percent of the rural population, live below the absolute poverty line. Per capita food availability rose from 88 percent of requirements in 1985 to 100 percent in 1990, and roughly 55 percent of household income on average is currently spent on food. Child mortality has dropped from 185 per 1,000 live births in 1980 to 147 in 1990. Food Aid Program: Title II food commodities are provided to the WFP for both emergency feeding programs and for regular food distribution activities. Related Dollar-Funded Programs: Strategic objectives include "increased private sector contribution to income growth," which affects food availability and access, and "increased use of family planning, child survival, and malaria control services," which affects availability and utilization. A.I.D. technical assistance which targets increased agroenterprise growth seeks to improve incomes and thus improve household food access.

NIGER This fragile Sahelian ecosystem has been stressed by over-population, insect invasions, and recent droughts causing major land degradation. Since 1991 Niger has made progress in moving toward a multiparty democracy; however, it is stalled in meeting conditions for a renewal of the World Bank Structural Adjustment program which lapsed in 1991. Food Security Issues: Annual variations in food production due to rainfall variation is a major problem. Minimal marketing of this limited production leaves urban as well as rural areas at risk. The modern business sector continues to decline, losing jobs and income and placing more households at risk, and recent surveys indicate child mortality may indeed be increasing. Food Aid Program: Title II food is provided in support of the WFP regular distribution programs. Related Dollar-Funded Programs: An early warning system for famines is being developed along with appropriate responses and a vulnerability assessment. Policy reforms support increased production/export of onions, cowpeas, and livestock, but response so far is slow.

PANAMA In 1990 Panama had a population of 2.4 million, growing at 2.1 percent annually, with a GNP per capita of \$2,130. Panama has a service-oriented economy with growth facilitated by its geographic location and its liberal financial characteristics. The economic and political situation deteriorated under the Noriega military regime, but the present government has made some progress. Food Aid Program: Title II commodities and Section 416(b) food is donated to the WFP in support of its food distribution programs in Panama. Related Dollar-Funded Programs: One strategic objective, "increased and diversified exports," is related to the availability aspect of food security.

PARAGUAY Agriculture is the primary economic activity in Paraguay, providing 30 percent of GDP and 50 percent of jobs. Although the country enjoyed substantial economic growth in the 1970s, it stagnated in the 1980s and currently faces structural constraints and challenges. Although public spending is currently low in the social sectors, many health, education, and nutrition indicators suggest a reasonably favorable situation. Food Aid Program: Title II food commodities are donated to the WFP in support of its feeding programs.

SAO TOME-PRINCIPE Sao Tome and Principe have abundant energy and great natural beauty, but tourism is weak. A broad range of tropical crops are produced on these two islands; however, output has declined due to lack of investment and good management since independence. Food Security Issues: Although per capita incomes are low, child mortality is lower than in many African countries. All consumption needs are largely met through imports as most agricultural production is for export, e.g., cocoa, coffee, and sugarcane. Food Aid Program: Title II commodities are donated to the WFP in support of their regular food distribution programs in-country.

SWAZILAND Through a sustained commitment to economic development in a free market, Swaziland has experienced good economic growth and improvements in some social indicators over the last decade. However, the economy is still dependent on a small number of exports and is starting to experience difficulties with rapid

population growth and environmental deterioration. Food Security Issues: High levels of unemployment due to quickly increasing population has left many without income to buy sufficient food. Access to health and other services has also deteriorated as demand has increased. Food Aid Program: Section 416(b) food and Title II commodities are provided in support of regular and emergency programs managed by the WFP. Related Dollar-Funded Programs: Small and microenterprise development is being supported for small-scale agriculture (especially horticultural production), marketing of agricultural products, and businesses that can link up with larger companies in the country. These efforts are expected to increase employment, and thus incomes, which will provide more household access to food.

SYRIAN ARAB REPUBLIC The Syrian Arab Republic is a semi-arid nation of 12.5 million people with an estimated 1991 per capita GNP of \$1,160. The most recent available estimate of infant mortality shows that approximately 25 children die out of every 1,000 born. The nation's economy suffered during the 1991 Gulf War due to reduced remittances from overseas workers and due to the disruption in regional trade. Food Aid Program: Section 416(b) commodities are donated to the WFP in support of food distribution programs.

TANZANIA Tanzania followed a socialist development program until 1986 when the government moved to reform its economy according to market principles. Government policy changes are supporting the rehabilitation of infrastructure needed by entrepreneurs and dismantling government parastatals. Real GDP growth has responded, averaging 4 percent per year. Food Security Issues: Tanzania has one of the highest agricultural potentials in Africa, but this potential has never been realized and huge imports of grain have been needed. Internal food distribution problems between food surplus and deficit areas are caused by poor infrastructure and transport systems. Due to several excellent community-based nutrition programs, child malnutrition has decreased in most regions despite food production decreases. Food Aid Program: Section 416(b) commodities are donated to the WFP in support of food distribution programs. Related Dollar-Funded Programs: Improved roads have increased the volume and value of goods transported in five core regions. Better farm input distribution should lead to more production with better farm output distribution.

ANNEX A

SECONDARY DATA ON FOOD SECURITY AND MALNUTRITION

| | Population (millions) | Percent of Children Who are Underweight | | Human Development Index 1993 | PPP Estimates GDP |
|---------------|--------------------------|--|----------------|------------------------------------|----------------------|
| | UNDP | Percent Malnourished | Year of Survey | (low #s=less developed) | UNDP |
| AFRICA | | | | | |
| Botswana | 1.3 * | 27.0 | 1984 | 0.552 | 3419 |
| Burundi | 2.9 * | 31.0 ^{1*} | 1987 | 0.167 | 625 |
| Congo | 2.3 * | 23.5 | 1987 | 0.372 | 2362 |
| Côte d'Ivoire | 12.4 * | 12.4 | 1986 | 0.286 | 1324 |
| Ethiopia | 51.4 * | 55.0 ^{2,4} | 1992 | 0.172 | 369 |
| Ghana | 15.5 * | 27.1 | 1987-88 | 0.311 | 1016 |
| Guinea | 5.9 * | 23.4 | 1980 | 0.045 | 501 |
| Kenya | 24.4 * | 18.0 ¹¹ | 1987 | 0.369 | 1058 |
| Lesotho | 1.8 * | 13.3 | 1981 | 0.431 | 1743 |
| Liberia | 2.7 * | 20.3 | 1976 | 0.222 | 857 |
| Madagascar | 12.4 * | 32.8 | 1983-84 | 0.327 | 704 |
| Malawi | 10.0 * | 23.9 | 1981 | 0.168 | 640 |
| Mali | 9.5 * | 25.1 ^{1*} | 1987 | 0.082 | 572 |
| Mauritania | 2.1 * | 31.0 | 1981 | 0.14 | 1057 |
| Mauritius | 1.1 * | 23.9 | 1985 | 0.794 | 5750 |
| Nigeria | 112.1 * | 35.7 | 1990 | 0.246 | 1215 |
| Rwanda | 7.3 * | 27.5 | 1985 | 0.186 | 657 |
| Senegal | 7.5 * | 17.5 ^{1*} | 1986 | 0.182 | 1248 |
| Sierra Leone | 4.3 * | 23.3 | 1977-78 | 0.065 | 1086 |
| Swaziland | 0.8 * | 9.7 ¹¹ | 1983-84 | 0.458 | 2384 |
| Tanzania | 26.9 * | 25.2 ¹⁵ | 1991-92 | 0.27 | 572 |
| Togo | 3.6 * | 24.4 ^{1*} | 1988 | 0.218 | 734 |
| Uganda | 18.1 * | 23.3 ¹⁴ | 1989 | 0.194 | 524 |
| Zambia | 8.4 * | 25.1 ¹⁵ | 1992 | 0.314 | 744 |
| Zimbabwe | 13.2 * | 10.0 ^{1*} | 1988 | 0.398 | 1484 |
| ASIA | | | | | |
| Bangladesh | 116.4 * | 66.5 | 1989-90 | 0.189 | 872 |
| India | 862.7 * | 63.0 ¹³ | 1988-90 | 0.309 | 1072 |
| Indonesia | 187.7 * | 39.9 | 1987 | 0.515 | 2181 |
| Nepal | 20.1 * | 69.6 | 1975 | 0.17 | 920 |
| Pakistan | 121.5 * | 40.4 | 1990 | 0.311 | 1862 |
| Philippines | 63.8 * | 33.5 | 1990 | 0.603 | 2303 |
| Sri Lanka | 17.4 * | 36.6 ¹⁴ | 1987 | 0.663 | 2405 |

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| | Population (millions) | Percent of Children Who are Underweight | | Human Development Index 1993 | PPP Estimates GDP |
|------------------------------------|--------------------------|--|----------------|------------------------------------|----------------------|
| | UNDP | Percent Malnourished | Year of Survey | (low #s = less developed) | UNDP |
| LATIN AMERICA AND CARIBBEAN | | | | | |
| Bolivia | 7.3 * | 11.4 ^{1a} | 1989 | 0.398 | 1572 |
| Brazil | 151.6 * | 7.1 | 1989 | 0.73 | 4718 |
| Colombia | 32.9 * | 10.1 | 1989 | 0.77 | 4237 |
| Costa Rica | 3.1 * | 6.0 | 1982 | 0.852 | 4542 |
| Dominican Rep. | 7.3 * | 10.4 ^{1s} | 1991 | 0.586 | 2404 |
| Ecuador | 10.8 * | 16.5 | 1987 | 0.646 | 3074 |
| El Salvador | 5.3 * | 15.5 | 1988 | 0.503 | 1950 |
| Guatemala | 9.5 * | 28.5 ^{1a} | 1987 | 0.489 | 2576 |
| Guyana | 0.8 * | 22.1 | 1981 | 0.541 | 1464 |
| Haiti | 6.6 * | 37.4 | 1978 | 0.275 | 933 |
| Honduras | 5.3 * | 20.6 | 1987 | 0.472 | 1470 |
| Jamaica | 2.4 * | 7.2 | 1989 | 0.736 | 2979 |
| Mexico | 86.3 * | 13.9 | 1988 | 0.805 | 5918 |
| Nicaragua | 3.8 * | 10.5 | 1980-82 | 0.5 | 1497 |
| Panama | 2.5 * | 15.7 | 1980 | 0.738 | 3317 |
| Paraguay | 4.4 * | 3.7 | 1990 | 0.641 | 2790 |
| Peru | 22.0 * | 10.8 ^{1s} | 1991-92 | 0.592 | 2622 |
| NEAR EAST | | | | | |
| Egypt | 53.6 * | 10.4 ^{1s} | 1990 | 0.389 | 1988 |
| Jordan | 4.1 * | 6.4 ^{1s} | 1990 | 0.582 | 2345 |
| Morocco | 25.7 * | 11.8 ^{1a} | 1987 | 0.433 | 2348 |
| Tunisia | 8.2 * | 7.8 ^{1a} | 1988 | 0.6 | 3579 |
| Yemen (ROY) | 12.1 * | 30.0 ^{1s} | 1991-92 | 0.233 | 1562 |
| EUROPE AND NIS | | | | | |
| | | Infant Mortality | | | |
| | | Deaths per 1000 | Year | | |
| Armenia | 3.4 | 35.0 | 1990 | 0.831 | 4741 |
| Byelarus | 10.3 | 20.0 | 1990 | 0.861 | 5727 |
| Georgia | 5.5 | 33.4 | 1990 | 0.829 | 4572 |
| Krygyzstan | 4.5 | 54.2 | 1990 | 0.689 | 3114 |
| Latvia | 2.7 | 18.8 | 1990 | 0.868 | 6457 |
| Lithuania | 3.7 | 18.2 | 1990 | 0.881 | 4913 |
| Moldova | 4.4 | 33.9 | 1990 | 0.758 | 3896 |
| Russia | 118.8 | 22.1 | 1990 | 0.862 | 7968 |
| Tajikistan | 5.5 | 72.0 | 1990 | 0.657 | 2558 |
| Turkmenistan | 3.8 | 94.0 | 1990 | 0.746 | 4230 |
| Ukraine | 52.1 | 22.1 | 1990 | 0.844 | 5433 |
| Uzbekistan | 21.0 | 64.0 | 1990 | 0.695 | 3115 |

ANNEX A

In the next five figures, we present secondary data on food security for selected countries, organized by region. These data include statistics on child mortality rate, from UNICEF; calorie supply from the FAO; and per capita income from the World Bank.

| COUNTRY | Child Mortality Rate (deaths per 1000) | | Calorie Supply as a % of Requirements | | Per Capita Income (\$ GNP) | | |
|----------------------|---|------|--|---------|-------------------------------|------|------|
| | 1980 | 1991 | 1985 | 1988-90 | 1985 | 1990 | 1991 |
| Angola | 261 | 292 | 86 | 80 | 470 | 610 | n/a |
| Benin | 176 | 149 | 94 | 104 | 260 | 360 | 380 |
| Botswana | 108 | 85 | 95 | 97 | 840 | 2040 | 2530 |
| Burkina Faso | 254 | 206 | 87 | 94 | 150 | 330 | 290 |
| Burundi | 203 | 180 | 99 | 84 | 230 | 210 | 210 |
| Cape Verde Islands | n/a | 61 | n/a | n/a | 430 | 890 | 750 |
| Central African Rep. | 202 | 180 | 92 | 82 | 260 | 390 | 390 |
| Comoro Islands | n/a | 133 | n/a | n/a | 240 | 480 | 500 |
| Côte d'Ivoire | 180 | 127 | 102 | 111 | 660 | 730 | 690 |
| Djibouti | n/a | 161 | n/a | n/a | 480 | 1210 | n/a |
| Ethiopia | 260 | 212 | 94 | 73 | 110 | 120 | 120 |
| Gambia, The | n/a | 234 | n/a | n/a | 230 | 260 | 360 |
| Ghana | 166 | 137 | 78 | 93 | 380 | 390 | 400 |
| Guinea | 276 | 234 | 85 | 97 | 320 | 480 | 460 |
| Guinea Bissau | 290 | 242 | 105 | 97 | 180 | 180 | 180 |
| Kenya | 112 | 75 | 87 | 89 | 290 | 370 | 340 |
| Lesotho | 165 | 137 | 100 | 93 | 470 | 470 | 580 |
| Liberia | 244 | 200 | 103 | 98 | 470 | 450 | n/a |
| Madagascar | 216 | 173 | 111 | 95 | 240 | 230 | 210 |
| Malawi | 290 | 228 | 95 | 88 | 170 | 200 | 230 |
| Mali | 310 | 225 | 69 | 96 | 150 | 270 | 280 |
| Mauritania | 249 | 209 | 97 | 106 | 420 | 500 | 510 |
| Mauritius | 42 | 28 | 118 | 128 | 1090 | 2250 | 2410 |
| Mozambique | 269 | 292 | 68 | 77 | 160 | 80 | 80 |
| Niger | 259 | 218 | 97 | 95 | 250 | 310 | 300 |
| Rwanda | 219 | 189 | 87 | 82 | 280 | 310 | 270 |
| Sao Tome | n/a | 89 | n/a | n/a | 320 | 420 | 400 |
| Senegal | 232 | 182 | 109 | 98 | 370 | 710 | 720 |
| Sierra Leone | 301 | 253 | 85 | 83 | 350 | 240 | 210 |
| Somalia | 246 | 211 | 91 | 81 | 280 | 150 | n/a |
| Sudan | 210 | 169 | 93 | 87 | 300 | 420 | n/a |
| Swaziland | n/a | 113 | n/a | n/a | 670 | 820 | 1050 |
| Tanzania | 202 | 178 | 99 | 95 | 290 | 120 | 100 |
| Togo | 184 | 144 | 97 | 99 | 230 | 410 | 410 |
| Uganda | 190 | 190 | 109 | 93 | 230 | 220 | 170 |
| Zambia | 160 | 200 | 85 | 87 | 390 | 420 | n/a |
| Zimbabwe | 125 | 88 | 84 | 94 | 680 | 640 | 650 |

SECONDARY DATA ON FOOD SECURITY AND MALNUTRITION

| COUNTRY | Child Mortality Rate (deaths per 1000) | | Calorie Supply as a % of Requirements | | Per Capita Income (\$ GNP) | | |
|-------------|---|------|--|---------|-------------------------------|------|------|
| | 1980 | 1991 | 1985 | 1988-90 | 1985 | 1990 | 1991 |
| Afghanistan | 280 | 257 | 92 | 72 | n/a | 280 | n/a |
| Bangladesh | 211 | 133 | 78 | 88 | 150 | 200 | 220 |
| Bhutan | 249 | 205 | n/a | 128 | 160 | 190 | 180 |
| India | 177 | 126 | 94 | 101 | 270 | 350 | 330 |
| Indonesia | 131 | 86 | 109 | 121 | 530 | 570 | 610 |
| Mongolia | 112 | 82 | 117 | 97 | n/a | 780 | n/a |
| Nepal | 185 | 147 | 88 | 100 | 160 | 170 | 180 |
| Pakistan | 152 | 134 | 93 | 99 | 380 | 380 | 400 |
| Philippines | 79 | 46 | 101 | 104 | 580 | 730 | 730 |
| Sri Lanka | 52 | 21 | 114 | 101 | 380 | 470 | 500 |

NOTE: Many Eastern European countries receiving food assistance do not yet have data available over time.

| COUNTRY | Child Mortality Rate (deaths per 1000) | | Calorie Supply as a % of Requirements | | Per Capita Income (\$ GNP) | | |
|---------------|---|------|--|---------|-------------------------------|------|------|
| | 1980 | 1991 | 1985 | 1988-90 | 1985 | 1990 | 1991 |
| Albania | 57 | 31 | 118 | 107 | n/a | 790 | n/a |
| Bulgaria | 25 | 21 | 146 | 148 | 4150 | 2250 | 1840 |
| Ex-Yugoslavia | 37 | 22 | 134 | 140 | 2070 | 3060 | n/a |
| Romania | 36 | 34 | 127 | 116 | 2560 | 1640 | 1390 |

| Latin America and Caribbean: Secondary Data on Food Security | | | | | | | |
|--|---|------|--|---------|-------------------------------|------|------|
| COUNTRY | Child Mortality Rate (deaths per 1000) | | Calorie Supply as a % of Requirements | | Per Capita Income (\$ GNP) | | |
| | 1980 | 1991 | 1985 | 1988-90 | 1985 | 1990 | 1991 |
| Bolivia | 180 | 126 | 88 | 84 | 470 | 620 | 650 |
| Brazil | 93 | 67 | 117 | 114 | 1640 | 2680 | 2940 |
| Colombia | 59 | 21 | 111 | 106 | 1320 | 1240 | 1260 |
| Costa Rica | 31 | 18 | 118 | 121 | 1300 | 1910 | 1850 |
| Dominican Rep. | 102 | 76 | 110 | 102 | 790 | 820 | 940 |
| Ecuador | 107 | 82 | 88 | 105 | 1160 | 960 | 1000 |
| El Salvador | 120 | 67 | 91 | 102 | 820 | 1100 | 1080 |
| Guatemala | 140 | 92 | 99 | 103 | 1250 | 900 | 930 |
| Guyana | n/a | 69 | n/a | n/a | 500 | 370 | 430 |
| Haiti | 195 | 137 | 79 | 89 | 310 | 370 | 370 |
| Honduras | 120 | 73 | 95 | 98 | 720 | 590 | 580 |
| Jamaica | 28 | 19 | 112 | 114 | 940 | 1510 | 1380 |
| Mexico | 81 | 37 | 126 | 131 | 2080 | 2490 | 3030 |
| Nicaragua | 143 | 81 | 105 | 99 | 770 | 830 | 460 |
| Panama | 42 | 30 | 98 | 98 | 2100 | 1830 | 2130 |
| Paraguay | 70 | 59 | 127 | 116 | 860 | 1110 | 1270 |
| Peru | 145 | 97 | 84 | 87 | 1010 | 1160 | 1070 |
| Suriname | n/a | 37 | n/a | n/a | 2580 | 3050 | 3630 |

| Near East: Secondary Data on Food Security | | | | | | | |
|--|---|------|--|---------|-------------------------------|------|------|
| COUNTRY | Child Mortality Rate (deaths per 1000) | | Calorie Supply as a % of Requirements | | Per Capita Income (\$ GNP) | | |
| | 1980 | 1991 | 1985 | 1988-90 | 1985 | 1990 | 1991 |
| Egypt | 179 | 85 | 127 | 132 | 610 | 600 | 610 |
| Iraq | 83 | 143 | 118 | 128 | 3020 | 2340 | n/a |
| Jordan | 75 | 46 | 117 | 110 | 1560 | 1240 | 1050 |
| Lebanon | 62 | 46 | 101 | 124 | n/a | 2150 | n/a |
| Morocco | 145 | 91 | 108 | 125 | 560 | 950 | 1030 |
| Tunisia | 103 | 58 | 119 | 131 | 1190 | 1420 | 1500 |
| Yemen (ROY) | 236 | 182 | 93 | n/a | 550 | 650 | 520 |

ANNEX B

TECHNICAL NOTES ON FOOD SECURITY AND MALNUTRITION

Understanding the connection between enhanced food security and improved nutritional status requires an understanding of the factors in and indicators of a nutritionally acceptable diet. To begin with, a nutritionally acceptable diet provides enough energy, measured in calories, to support normal physical and mental activity. The energy required for normal growth, home activity, and work, is provided by the calories consumed each day. The true food security of a country cannot be determined by the national average caloric consumption; some people consume more calories than that average, and many consume far fewer. Inadequate or energy deficient diets not only inhibit normal growth, but also increase vulnerability to disease and parasites, reduce productivity or concentration, and limit benefits gained from school and training.

The optimal daily diet should also include an adequate proportion of calories provided by protein sources. Because protein is especially important during pregnancy, early childhood and other growth periods, protein deficiency is a food security concern. However, in general, energy deficiency is the primary reason diets are inadequate in developing countries. Usually diets that are acceptable in energy content are also acceptable in protein content.

A proper diet should also include a range of micronutrients. These are vitamins and minerals essential for healthy human growth but needed in very small quantities, such as vitamin A, iron, iodine, zinc, calcium, vitamin C, and the B vitamins. When micronutrient deficiencies exist, growth and development suffer and the risk of infectious and nutritional disorders increases. When the intake and balance of these essential "building blocks" are insufficient, the result is an inadequate and improperly balanced diet — food poverty and hunger.

A. ENERGY-DEFICIENT DIETS AND MALNUTRITION

One of the most accepted measures of child nutrition is a comparison of the physical growth of malnourished children with a reference population of children of the same age in a healthy, well-nourished population. Measures commonly used by international organizations including A.I.D. are:

- underweight (low weight for age)**, which is a composite measure of stunting and wasting, and thus a mix of chronic and acute undernutrition, useful for defining the overall magnitude of malnutrition, and the most common indicator available across countries;
- wasting (low weight for height)** — a measure of current or acute malnutrition resulting from such causes as inadequate food intake, incorrect feeding practices, and disease, often associated with extreme and temporary food shortages and diseases; and
- stunting (low height for age)** — a measure of cumulative deficient growth or chronic malnutrition, reflecting linear growth failure resulting from prolonged malnutrition over a longer period of time.

Although inadequate access to food is only one of several factors contributing to malnutrition, observation shows that countries with high levels of child malnutrition are often the countries with the most food-insecure households.

B. MICRO-NUTRIENTS AND MALNUTRITION

Micronutrients — essential vitamins and minerals needed in very small quantities — have been found to stimulate mental development, protect against infectious diseases, improve adults' capacity for physical work, prevent permanent disability, and save lives. Conversely, micronutrient deficiencies can cause harm from the moment of conception because of their influence on the regulation of growth and other physiological processes.

1. Vitamin A

Increased ill health and mortality have long been associated with vitamin A deficiency. The most obvious results are progressive damage to the eye, known as *xerophthalmia*, which ranges from the mildest form, night blindness, to ulceration and destruction of the cornea. The eye is the most observable tissue damaged by vitamin A deficiency; progressive damage to other membrane systems is believed to occur in a parallel process. Trials have proven that

ANNEX B

providing vitamin A to young children with deficiencies reduced mortality by 30 percent. WHO reported that in 1991 nearly 14 million pre-school children had visible eye damage due to vitamin A deficiency; each year an estimated 250,000 to 500,000 pre-school children go blind from a lack of this micronutrient, and about two-thirds of these children die within months of going blind. Vitamin A deficiency has been identified as a widespread public health problem in 37 countries.

| Vitamin A Deficiency | | |
|-----------------------|---|-------------------------------------|
| WHO Region | Total Pre-School Child Population in Countries Where Xerophthalmia Exists | Estimated Number With Xerophthalmia |
| Africa | 18 | 1.3 |
| Americas | 2 | 0.1 |
| Southeast Asia | 138 | 10.0 |
| Europe | --- | --- |
| Eastern Mediterranean | 13 | 1.0 |
| Western Pacific | 19 | 1.4 |
| Total | 190 | 13.8 |

Targeted interventions (such as education, vitamin fortification, or targeted supplements) can be designed at relatively low costs independent of changing family or national incomes.

2. Iron

Iron deficiency is the most common nutritional disorder in the world, affecting over 1 billion people. Working males and school children, and reproductive-aged women and pre-school children in tropical and sub-tropical zones, are especially affected. A lack of adequate iron in the diet leads to *anaemia* — which, with increasing severity, causes reduced work capacity, diminished learning ability, increased susceptibility to infection, and greater risk of death associated with pregnancy and childbirth.

| Region | Trends in Dietary Iron Supply | Trends in Anaemia (Non-Pregnant Women) |
|--------------------------|---|---|
| Sub-Saharan Africa | Down slightly, especially from animal sources | Up |
| Near East/North Africa | Up, from both animal and vegetable sources | Probably down (est. 36% 1975-1980, 28% 1985-1990) |
| South Asia | Down, due to reduced production of pulses | High and increasing |
| Southeast Asia | Down slightly, especially vegetable sources from 1980 | Probably up (est. 40% 1970-1980, 57% 1980-1990) |
| Middle America/Caribbean | Down vegetable sources, but animal sources up | Probably up (est. 20% 1970-1980, 30% 1980-1990) |
| South America | Down, but animal sources relatively high | Probably down (est. 24% 1970-1980, 20% 1980-1990) |

WHO estimates that 44 percent of women in developing countries are anaemic, with 56 percent prevalence for pregnant women and 43 percent for non-pregnant women. Putting together the admittedly scanty longitudinal trend data on anaemia presents a consistent picture of a static or decreasing per capita supply of iron in all regions of the developing world except for the Near East and North Africa. Average iron consumption based on national figures hides the unequal distribution across various locations and socioeconomic groups. Recent research shows that iron is perhaps the most income-elastic of all major nutrients, and that within households distribution of iron seems quite inconsistent when related to individual dietary requirements.

3. Iodine

The consequences of iodine deficiency include *goiter* (enlargement of the thyroid gland), reduced mental function, and increased rates of still births, miscarriages, and infant deaths. Severe mental impairment known as *cretinism* occurs in babies born to severely iodine-deficient mothers, while deficiencies in iodine later in infancy and childhood cause mental retardation, delayed motor development, growth failure, and speech/hearing defects. WHO estimates that in 1990 around 1 billion people lived in iodine deficient environments around the world (often mountainous and remote areas or flood plains). More than 200 million people are estimated to be afflicted with goiter, in addition to the 6 million children with overt cretinism and 20 million people worldwide who are mentally retarded specifically as a result of iodine deficiency.

| | At Risk | With Goiter | Overt Cretinism |
|--|-------------|-------------|-----------------|
| Africa | 227 | 39 | 0.5 |
| Latin America | 60 | 30 | 0.3 |
| Southeast Asia | 280 | 100 | 4.0 |
| Asia (other countries including China) | 400 | 30 | 0.9 |
| Eastern Mediterranean | 33 | 12 | --- |
| Total: | 1000 | 211 | 5.7 |

Goiter and the lethargy that mild iodine deficiency can cause are reversible if iodine intake status improves in time. Control of iodine deficiency disorders (IDDs) is largely achieved through fortification of salt with iodine and/or periodic distribution of iodized oil. Implementation of these IDD inhibitors is growing, and intensive efforts are underway in Africa, Asia, and Latin America.

4. Other Micronutrients

Deficiencies in other micronutrients — vitamin C, thiamine, and niacin — generally occur in long-stay refugee camps where there is total or near-total dependence on rations with limited access to seasonal fresh fruits and vegetables. Niacin-deficient diets cause *pellagra*, common among maize-eating peoples when neither legumes nor fish complement the maize. A lack of thiamine results in *beriberi*, common among rice-eating populations when diets depend on polished rice with no legumes or fresh vegetables. These micronutrient deficiency problems had been largely eliminated previously, and their re-appearance in refugee camps is taken as an indication of food management constraints under emergency situations.

C. MALNUTRITION AND THE GLOBAL BURDEN OF DISEASE

The World Bank estimates that the four most severe "diseases of malnutrition" — protein/energy malnutrition, vitamin A deficiency, iodine deficiency, and anaemia — caused a direct loss of almost 46 million disability-adjusted life-years (DALYs) in 1990. DALYs measure the global burden of disease and the effectiveness of health interventions by calculating the future years of disability-free life that are lost as a result of premature death or disease. This estimate means that 3.4 percent of the global burden of disease is caused directly by malnutrition, with the estimated burden slightly larger for women because of the heavy incidence of anaemia in women. The total

ANNEX B

impact of malnutrition is much larger, however, because protein/energy malnutrition and micronutrient deficiencies increase the risk of illness and death through other diseases. Details are provided in the following table.

| Intervention | Target Group | Approximate Cost (dollars) | |
|--|-----------------------------|----------------------------|----------------|
| | | Per Death Averted | Per DALY Saved |
| Iron Supplementation | Pregnant Women | 800 | 13 |
| Iron Fortification | Entire Population | 2000 | 4 |
| Iodine Supplementation | Women of Reproductive Age | 1250 | 19 |
| Iodine Supplementation | Entire Population | 4650 | 37 |
| Iodination of Salt or Water | Entire Population | 1000 | 8 |
| Vitamin A Supplementation ¹ | Children Under Age 5 | 50 | 1 |
| Vitamin A Fortification | Entire Population | 154 | 4 |
| Food Supplementation | Children Under Age 5 | 1942 | 63 |
| Food Supplementation | Pregnant Women ² | 733 | 24 |

ANNEX C

1993 FOOD AID PROGRAM DATA TABLES

| Title I — FY 1993 Program Data | | | |
|------------------------------------|------------|-------------|--------------------------|
| Country | Value (\$) | Metric Tons | Commodities |
| AFRICA | | | |
| Côte d'Ivoire | 10,000,000 | 33,000 | rice |
| Zimbabwe | 5,000,000 | 50,000 | feed grains |
| ASIA | | | |
| Pakistan | 40,000,000 | 90,000 | veg oil |
| Philippines | 20,000,000 | 95,000 | soy meal |
| Sri Lanka | 10,000,000 | 75,000 | wheat |
| EUROPE | | | |
| Albania | 23,000,000 | 80,120 | wheat, rice |
| Bulgaria | 13,500,000 | 135,000 | feed grains |
| Lithuania | 25,000,000 | 180,000 | feed grains, soy meal |
| Romania | 10,000,000 | 67,000 | wheat |
| NIS | | | |
| Armenia | 20,600,000 | 77,300 | wheat, rice, wheat flour |
| Byelarus | 5,000,000 | 23,000 | soy meal |
| Georgia | 50,400,000 | 262,000 | wheat |
| Kyrgyzstan | 18,000,000 | 105,000 | wheat |
| Moldova | 10,000,000 | 50,000 | wheat |
| Tajikistan | 13,500,000 | 74,095 | feed grains, soy meal |
| Turkmenistan | 10,000,000 | 40,000 | wheat |
| Ukraine | 20,000,000 | 145,000 | feed grains |
| LATIN AMERICA AND CARIBBEAN | | | |
| Costa Rica | 15,000,000 | 90,000 | wheat |
| El Salvador | 32,200,000 | 160,700 | wheat, soy meal, tallow |
| Guatemala | 15,000,000 | 110,000 | wheat |
| Jamaica | 30,000,000 | 191,800 | rice, feed grains |
| Suriname | 3,500,000 | 24,000 | wheat |
| NEAR EAST | | | |
| Jordan | 30,000,000 | 200,000 | wheat |
| Morocco | 20,000,000 | 88,000 | wheat, veg oil |
| Tunisia | 5,000,000 | 50,000 | feed grains |
| Yemen | 8,200,000 | 32,800 | rice |

Source for Annex C Tables: Value of programs for FY 1993 (as of October 1, 1993) from A.I.D.'s Bureau for Food and Humanitarian Assistance.

| Title II FY 1993 Program Data | | | | | |
|-------------------------------|------------|-------------|---------------|---|---|
| Country | Value (\$) | Metric Tons | Beneficiaries | Commodities | Sponsors |
| AFRICA | | | | | |
| Angola | 13,711,200 | 20,978.0 | 2,300,000 | beans, corn, rice, vegoil, cornmeal, CSB | CARE, CRS, WFP |
| Benin | 2,942,800 | 9,470.9 | 163,900 | cornmeal, wheat, vegoil, CSB, WSB, sorghum | WFP, CRS |
| Botswana | 594,000 | 2,250.0 | no estimate | sorghum | WFP |
| Burkina Faso | 10,866,400 | 23,443.9 | 361,200 | beans, cornmeal, vegoil, wheat | WFP, CRS |
| Burundi | 319,800 | 615.0 | no estimate | rice | WFP |
| Cape Verde | 3,499,300 | 20,237.0 | 108,400 | corn, lentils, CSB | WFP, ACDI |
| Central African Republic | 794,500 | 1,850.0 | no estimate | cornmeal, vegoil | WFP |
| Comoro Islands | 483,000 | 1,150.0 | no estimate | rice | WFP |
| Congo | 441,000 | 1,050.0 | 1,800 | rice | WFP |
| Côte d'Ivoire | 2,859,300 | 6,540.0 | 11,500 | rice, vegoil | WFP |
| Djibouti | 508,300 | 1,204.0 | 40,000 | rice, CSB | WFP |
| Ethiopia | 58,071,400 | 137,584.0 | 3,998,100 | vegoil, wheat, CSB, beans, bulgur, rice | CARE, CRS, EOC, FHI, WFP, WVRD, SC, FAO |
| Gambia, The | 3,614,700 | 8,392.0 | 27,800 | CSB, vegoil, rice, wheat flour, nonfat dried milk | WFP, CRS |
| Ghana | 10,766,900 | 36,990.3 | 146,000 | rice, bulgur, vegoil, wheat, WSB, sorghum grits | WFP, ADRA, TECHNOSERV, CRS |
| Guinea | 1,581,200 | 3,775.0 | no estimate | CSB, rice | WFP |
| Guinea-Bissau | 1,887,500 | 4,349.0 | 5,300 | rice, wheat flour, CSB, vegoil | WFP, AFRICARE |
| Kenya | 23,503,200 | 70,900.1 | 1,900,000 | vegoil, wheat, CSB, beans, wheat flour, sorghum | CRS, UNICEF, WFP, WVRD, FAO |
| Lesotho | 5,223,000 | 13,545.0 | 584,200 | vegoil, cornmeal | WFP |
| Liberia | 48,901,300 | 96,773.0 | 5,612,000 | beans, CSB, rice, vegoil | CRS, WFP |
| Madagascar | 3,954,900 | 9,427.0 | 143,800 | rice, CSB, vegoil, corn soy milk, wheat flour | CRS, WFP |
| Malawi | 1,488,800 | 1,500.0 | 1,015,000 | vegoil | WFP |
| Mali | 179,600 | 300.0 | 14,000 | CSB, vegoil | WVRD |
| Mauritania | 2,987,900 | 10,275.0 | 632,600 | vegoil, WSB, wheat, sorghum grits | DOULO, WFP |
| Mauritius | 533,700 | 1,495.0 | no estimate | WSB, wheat flour | WFP |
| Mozambique | 26,019,400 | 75,599.5 | 830,600 | corn, beans, vegoil, CSB | ADRA, WVRD, WFP |
| Niger | 29,100 | 30.0 | 24,500 | vegoil | WFP |
| Rwanda | 15,812,100 | 23,705.0 | 230,000 | beans, sorghum, vegoil, cornmeal, corn, CSB | CRS, WFP |
| Sao Tome | 1,011,000 | 2,906.0 | 111,100 | cornmeal, rice, beans, wheat flour | WFP |
| Senegal | 1,588,900 | 4,248.0 | no estimate | rice, vegoil, sorghum | WFP |
| Sierra Leone | 9,914,200 | 19,857.0 | 392,000 | beans, CSB, bulgur, rice, vegoil, WSB, cornmeal | CRS, WFP |
| Somalia | 49,160,700 | 88,367.0 | 2,031,200 | beans, lentils, CSB, vegoil, sorghum, rice, WSB, wheat flour | CRS, FAO, ICRC, WFP, WVRD |
| Sudan | 46,699,300 | 77,162.0 | 1,991,200 | lentils, sorghum grits, sorghum, vegoil, beans, CSB, wheat, peas, wheat flour | ADRA, CRS, WFP, WVRD, SC |
| Swaziland | 1,755,100 | 3,605.0 | 500,000 | CSB | WFP |
| Togo | 5,014,300 | 12,439.4 | 114,400 | vegoil, WSB, bulgur, wheat, cornmeal | CRS, OIC |
| Uganda | 5,434,000 | 5,758.0 | 246,600 | vegoil, CSB, cornmeal | WFP, ACDI |
| Zimbabwe | 1,815,000 | 5,000.0 | 98,000 | cornmeal | WFP |

FOOD AID PROGRAM DATA TABLES

| Country | Value (\$) | Metric Tons | Beneficiaries | Commodities | Sponsors |
|---|-------------|-------------|---------------|---|----------------------------------|
| ASIA | | | | | |
| Afghanistan | 18,000,000 | 50,000 | 1,100,000 | wheat | WFP |
| Bangladesh | 34,147,200 | 135,241.0 | 5,000,000 | wheat, vegoil | WFP, CARE |
| Bhutan | 620,800 | 1,132.0 | no estimate | WSB, bulgur | WFP |
| India ¹ | 128,471,000 | 306,898.0 | 17,634,500 | CSB, vegoil, bulgur, peas, rice, wheat | WFP, CARE, CRS |
| Indonesia | 6,986,500 | 20,812.0 | 58,100 | rice, wheat, WSB | CRS |
| Nepal | 511,400 | 768.0 | 65,000 | WSB | WFP |
| Philippines | 20,320,200 | 55,048.9 | 2,890,000 | bulgur, peas, CSB | CARE, CRS |
| EUROPE | | | | | |
| Albania | 2,481,700 | 5,799.0 | 170,000 | wheat flour, beans, vegoil | WFP, RED CROSS, FAO |
| Ex-Yugoslavia | 90,403,800 | 180,549.0 | 18,314,300 | wheat flour, rice, beans, vegoil, CSB, cornmeal, lentils, peas, wheat | CRS, WFP, RED CROSS, FAO |
| Former Yugoslav Republic of Macedonia | 3,466,000 | 12,124.0 | 30,000 | lentils, rice, vegoil, wheat flour, wheat | CRS |
| LATIN AMERICA AND CARIBBEAN | | | | | |
| Bolivia | 26,853,100 | 60,331.9 | 4,706,900 | CSB, WSB, corn soy milk, cornmeal, wheat flour, bulgur, rice | WFP, ADRA, CARITAS, FHI, PCI |
| Brazil | 2,286,000 | 9,200.0 | 200,000 | beans, wheat | WFP |
| Colombia | 762,900 | 2,284.0 | 44,000 | wheat flour | WFP |
| Costa Rica | 256,100 | 689.0 | 23,500 | beans, rice, wheat flour | WFP |
| Dominican Republic | 2,371,600 | 4,773.6 | 125,600 | beans, rice, corn, vegoil, bulgur | WFP, CARE |
| El Salvador | 7,100,200 | 18,294.0 | 2,640,000 | beans, rice, corn, vegoil | WFP |
| Guatemala | 12,560,500 | 32,931.6 | 1,320,800 | corn, rice, beans, vegoil, CSB, bulgur, wheat flour | WFP, CARE, CRS, FTC, SHARE |
| Guyana | 119,500 | 310.0 | no estimate | beans, wheat flour | WFP |
| Haiti | 18,222,300 | 38,991.4 | 1,099,200 | bulgur, vegoil, sorghum grits, beans, cornmeal, peas, WSB, CSB | ADRA, CARE, CRS, WFP, INTLIFE |
| Honduras | 8,129,300 | 24,337.0 | 885,100 | beans, rice, corn, wheat, bulgur, vegoil, CSB | WFP, CARE |
| Mexico | 3,843,900 | 19,361.0 | 355,700 | vegoil, corn, CSB, corn soy masa flour, beans, rice | WFP |
| Nicaragua | 3,441,400 | 7,091.7 | 1,147,800 | lentils, vegoil, WSB, beans, wheat soy milk, wheat flour, rice | WFP, ADRA |
| Panama | 151,400 | 570.0 | no estimate | corn, vegoil | WFP |
| Paraguay | 212,200 | 690.0 | 56,200 | cornmeal, vegoil | WFP |
| Peru | 71,123,100 | 157,073.2 | 14,393,800 | CSB, bulgur, beans, peas, corn soy masa flour, lentils, vegoil, wheat flour, rice, cornmeal | WFP, ADRA, CARE, CARITAS, PRISMA |
| NEAR EAST | | | | | |
| Egypt | 3,154,800 | 9,030.0 | 60,200 | vegoil, wheat flour | WFP |
| Gaza | 1,077,500 | 2,678.5 | 65,000 | rice, vegoil, beans, wheat flour | CRS |
| Iraq | 3,000,000 | 5,630.0 | 1,100,000 | lentils, vegoil | WFP |
| Lebanon | 6,580,300 | 8,809.0 | 500,000 | rice, vegoil | SC |
| Morocco | 2,737,500 | 6,832.0 | 2,937,600 | vegoil, wheat flour | WFP |
| West Bank | 1,679,100 | 4,086.9 | 105,000 | beans, wheat flour, vegoil, rice | CRS |
| Yemen (ROY) | 3,761,800 | 11,263.0 | 290,000 | wheat flour | WFP |
| ¹ India's program value has been increased by \$5 million from that reported on October 6, 1992 to reflect increased transportation costs. | | | | | |

| Title III -- FY 1993 Program Data | | | |
|------------------------------------|------------|-------------|---------------|
| Country | Value (\$) | Metric Tons | Commodities |
| AFRICA | | | |
| Ethiopia | 36,200,000 | 20,552 | cotton |
| Ghana | 13,000,000 | 38,422 | rice |
| Guinea | 10,851,000 | 30,750 | rice |
| Mali | 3,300,000 | 9,251 | wheat |
| Mozambique | 15,000,000 | 70,217 | corn |
| Senegal | 4,000,000 | 10,692 | rice |
| Uganda | 6,632,000 | 12,120 | tallow |
| ASIA | | | |
| Bangladesh | 38,000,000 | 208,525 | wheat |
| India | 23,000,000 | 37,689 | vegoil |
| Sri Lanka | 58,900,000 | 315,212 | wheat |
| LATIN AMERICA AND CARIBBEAN | | | |
| Bolivia | 20,000,000 | 138,537 | wheat |
| Guyana | 7,000,000 | 36,661 | wheat |
| Haiti | 20,000,000 | 49,328 | wheat flour |
| Honduras | 13,000,000 | 75,859 | wheat |
| Nicaragua | 15,700,000 | 61,318 | tallow, wheat |
| Peru | 32,400,000 | 177,261 | wheat |

ANNEX D

1993 FOOD SECURITY DATA TABLES AND NOTES

| 1993 FOOD SECURITY COUNTRY DATA AND RANKING BY REGION | | | | | | | | | |
|---|---|---------------------------------------|------------------------------|---|--|----------------------------------|-----------------------------------|-------------------|-------------------------------|
| COUNTRY | THREE-YEAR PER CAPITA AVERAGES: 1989-1991 | | | | | | FOOD SECURITY VALUES AND RANKS | | |
| | GNP Per Capita (ATLAS) | Calorie Availability Per Capita | Under 5 Mortality Rate | Foreign Exchange Earnings Per Capita | Domestic Food Production Per Capita | Household Food Access Rank | National Self-Reliance Rank | Weighted Value | 1993 Food Security Rank |
| AFRICA | | | | | | | | | |
| BENIN | 360.00 | 2389.00 | 148.87 | 91.00 | 283.77 | 34 | 43 | -0.22798 | 39 |
| BOTSWANA | 2166.67 | 2251.50 | 65.67 | 1780.56 | 46.99 | 51 | 60 | 1.25535 | 59 |
| BURKINA FASO | 273.33 | 2202.00 | 222.00 | 55.56 | 244.20 | 10 | 32 | -0.60767 | 17 |
| BURUNDI | 213.33 | 1923.50 | 189.67 | 22.67 | 204.42 | 7 | 18 | -0.78201 | 10 |
| CAPE VERDE | 688.67 | 2665.50 | 58.33 | 271.88 | 42.93 | 49 | 10 | -0.16046 | 42 |
| CENTRAL AFRICAN REPUBLIC | 400.00 | 1852.50 | 189.33 | 65.44 | 156.68 | 8 | 13 | -0.84345 | 7 |
| COMORO ISLANDS | 473.33 | 1750.00 | 146.33 | 110.74 | 88.92 | 14 | 3 | -0.89656 | 5 |
| CONGO | 1000.00 | 2280.50 | 110.67 | 589.21 | 145.36 | 39 | 49 | 0.08382 | 48 |
| ETHIOPIA | 120.00 | 1694.00 | 219.33 | 16.58 | 140.15 | 2 | 8 | -1.11489 | 2 |
| GAMBIA, THE | 340.00 | 2189.00 | 237.67 | 218.20 | 250.80 | 11 | 45 | -0.43694 | 32 |
| GHANA | 393.33 | 2093.00 | 140.00 | 80.64 | 202.95 | 27 | 24 | -0.51845 | 23 |
| GUINEA | 476.67 | 2258.00 | 237.33 | 130.08 | 202.33 | 13 | 30 | -0.80776 | 18 |
| GUINEA-BISSAU | 180.00 | 2228.50 | 246.00 | 17.70 | 193.24 | 8 | 17 | -0.82703 | 8 |
| KENYA | 380.00 | 2055.50 | 98.00 | 95.52 | 147.69 | 32 | 14 | -0.56448 | 20 |
| LESOTHO | 546.67 | 2107.00 | 132.67 | 307.50 | 115.91 | 29 | 25 | -0.48027 | 28 |
| MADAGASCAR | 220.00 | 2160.50 | 176.00 | 47.28 | 275.47 | 18 | 36 | -0.46674 | 26 |
| MALAWI | 200.00 | 2048.00 | 246.33 | 53.07 | 218.13 | 4 | 26 | -0.60104 | 9 |
| MALI | 253.33 | 2247.00 | 265.33 | 64.84 | 279.23 | 5 | 39 | -0.59830 | 19 |
| MAURITANIA | 496.67 | 2450.50 | 213.33 | 257.17 | 68.08 | 26 | 11 | -0.68191 | 13 |
| MAURITIUS | 2300.00 | 2897.50 | 28.33 | 1658.98 | 6.56 | 61 | 59 | 1.45004 | 81 |
| MOZAMBIQUE | 80.00 | 1793.50 | 295.33 | 28.02 | 135.20 | 1 | 7 | -1.25576 | 1 |
| NIGER | 303.33 | 2245.50 | 221.33 | 48.62 | 271.21 | 12 | 35 | -0.52538 | 22 |
| NIGERIA | 336.67 | 2207.50 | 175.00 | 127.37 | 265.77 | 21 | 42 | -0.37018 | 34 |
| RWANDA | 313.33 | 1965.00 | 196.00 | 25.65 | 105.81 | 9 | 2 | -0.99107 | 4 |
| SAO TOME & PRINCIPE | 420.00 | 2176.00 | 55.00 | 78.70 | 61.46 | 37 | 1 | -0.83167 | 15 |
| SENEGAL | 703.33 | 2328.50 | 185.33 | 202.21 | 265.35 | 30 | 46 | -0.20023 | 41 |
| SIERRA LEONE | 216.67 | 1914.00 | 257.00 | 40.11 | 127.35 | 3 | 6 | -1.10126 | 3 |
| SUDAN | 414.43 | 2002.50 | 172.00 | 31.18 | 123.15 | 16 | 4 | -0.85597 | 6 |
| SWAZILAND | 1006.67 | 2623.50 | 150.00 | 972.77 | 178.38 | 42 | 58 | 0.56747 | 53 |
| TANZANIA | 110.00 | 2196.00 | 173.67 | 33.15 | 284.68 | 17 | 38 | -0.46225 | 27 |
| TOGO | 406.67 | 2295.50 | 147.00 | 193.98 | 232.77 | 31 | 41 | -0.27603 | 36 |
| UGANDA | 186.67 | 2207.50 | 173.67 | 19.92 | 219.60 | 19 | 21 | -0.60908 | 16 |
| ZAMBIA | 430.00 | 2017.00 | 149.00 | 162.89 | 209.85 | 22 | 33 | -0.46683 | 25 |
| ASIA | | | | | | | | | |
| BANGLADESH | 206.67 | 2047.00 | 165.67 | 25.58 | 223.62 | 15 | 22 | -0.63436 | 14 |
| INDIA | 346.67 | 2238.50 | 137.67 | 28.62 | 229.67 | 28 | 27 | -0.45127 | 29 |
| INDONESIA | 560.00 | 2616.00 | 94.33 | 165.42 | 293.88 | 45 | 48 | 0.11544 | 47 |
| NEPAL | 180.00 | 2230.50 | 176.33 | 26.27 | 285.68 | 20 | 37 | -0.44410 | 31 |
| PAKISTAN | 393.33 | 2355.50 | 151.33 | 77.21 | 183.70 | 33 | 19 | -0.49108 | 24 |
| PHILIPPINES | 716.67 | 2399.00 | 62.33 | 223.41 | 233.72 | 47 | 44 | 0.04600 | 45 |
| SRI LANKA | 466.67 | 2245.50 | 30.67 | 160.01 | 127.90 | 43 | 15 | -0.30725 | 35 |
| LATIN AMERICA/CARIBBEAN | | | | | | | | | |
| BOLIVIA | 640.00 | 2000.50 | 150.33 | 134.65 | 181.24 | 24 | 23 | -0.52646 | 21 |
| BRAZIL | 2680.00 | 2736.50 | 78.33 | 250.82 | 320.87 | 60 | 52 | 0.78753 | 55 |
| COLOMBIA | 1253.33 | 2473.50 | 40.33 | 307.99 | 161.81 | 50 | 34 | 0.14394 | 49 |
| COSTA RICA | 1773.33 | 2711.00 | 20.67 | 720.12 | 191.10 | 58 | 55 | 0.84298 | 56 |
| DOMINICAN REPUBLIC | 850.00 | 2310.50 | 78.00 | 332.03 | 91.66 | 44 | 20 | -0.23187 | 38 |
| ECUADOR | 973.33 | 2402.50 | 83.33 | 303.73 | 189.42 | 48 | 40 | 0.02436 | 44 |
| EL SALVADOR | 1013.33 | 2313.00 | 81.33 | 236.61 | 162.88 | 46 | 31 | -0.12324 | 43 |
| GUATEMALA | 923.33 | 2261.00 | 94.33 | 198.19 | 170.48 | 40 | 28 | -0.20876 | 40 |
| GUYANA | 413.33 | 2454.50 | 71.00 | 346.31 | 241.32 | 41 | 50 | 0.11724 | 48 |
| HAITI | 366.67 | 1995.00 | 133.33 | 58.22 | 113.33 | 23 | 5 | -0.78167 | 11 |
| HONDURAS | 676.67 | 2246.00 | 86.67 | 200.04 | 175.00 | 38 | 29 | -0.23704 | 37 |
| JAMAICA | 1500.00 | 2549.00 | 20.00 | 1030.78 | 40.41 | 57 | 54 | 0.65510 | 54 |
| MEXICO | 2623.33 | 3037.00 | 45.67 | 518.61 | 309.79 | 63 | 57 | 1.18741 | 58 |
| NICARAGUA | 543.33 | 2212.50 | 83.67 | 100.41 | 139.86 | 35 | 12 | -0.44810 | 30 |
| PANAMA | 1943.33 | 2256.00 | 31.33 | 2293.92 | 218.35 | 55 | 63 | 2.21260 | 63 |
| PARAGUAY | 1148.67 | 2675.50 | 60.00 | 427.75 | 629.39 | 52 | 61 | 1.38189 | 60 |
| PERU | 1406.67 | 1955.00 | 110.67 | 199.49 | 114.60 | 36 | 16 | -0.39334 | 33 |
| SURINAME | 3383.33 | 2438.50 | 38.33 | 1191.99 | 458.27 | 62 | 62 | 2.11423 | 62 |
| EUROPE | | | | | | | | | |
| BULGARIA | 2313.33 | 3706.00 | 18.67 | 823.62 | 1015.26 | 65 | 66 | 3.40581 | 66 |
| POLAND | 1780.00 | 3414.50 | 17.67 | 631.11 | 900.31 | 64 | 64 | 2.72960 | 84 |
| EX-YUGOSLAVIA | 2970.00 | 3525.50 | 24.00 | 1068.13 | 740.27 | 66 | 65 | 3.03541 | 65 |
| NEAR EAST | | | | | | | | | |
| EGYPT | 620.00 | 3304.00 | 88.00 | 249.40 | 248.05 | 56 | 47 | 0.37721 | 50 |
| JORDAN | 1260.00 | 2678.00 | 51.00 | 922.31 | 35.97 | 54 | 51 | 0.47422 | 51 |
| MOROCCO | 966.67 | 3044.50 | 106.33 | 306.00 | 306.66 | 53 | 53 | 0.50179 | 52 |
| TUNISIA | 1406.67 | 3155.50 | 62.00 | 703.39 | 204.24 | 59 | 58 | 0.86200 | 57 |
| YEMEN | 566.67 | 2254.50 | 187.00 | 211.22 | 64.71 | 25 | 9 | -0.73091 | 12 |

Source: Calculated by FAO's Food and Humanitarian Assistance Bureau (F.A.O.) Food and Resource Service, July, 1993

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ANNEX D

| FOOD SECURITY RANKING BY COUNTRY | | | | | | | | | |
|----------------------------------|---|---------------------------------------|------------------------------|---|--|----------------------------------|-----------------------------------|-------------------|-------------------------------|
| COUNTRY | THREE-YEAR PER CAPITA AVERAGES: 1989-1991 | | | | | | FOOD SECURITY VALUES AND RANKS | | |
| | GNP Per Capita (ATLAS) | Calorie Availability Per Capita | Under-5 Mortality Rate | Foreign Exchange Earnings Per Capita | Domestic Food Production Per Capita | Household Food Access Rank | National Self-Reliance Rank | Weighted Value | 1993 Food Security Rank |
| Most Food Insecure | | | | | | | | | |
| MOZAMBIQUE | 80.00 | 1793.50 | 295.33 | 28.02 | 135.20 | 1 | 7 | -1.25578 | 1 |
| ETHIOPIA | 120.00 | 1894.00 | 219.33 | 18.58 | 140.15 | 2 | 8 | -1.11489 | 2 |
| SIERRA LEONE | 218.87 | 1914.00 | 257.00 | 40.11 | 127.35 | 3 | 8 | -1.10128 | 3 |
| RWANDA | 313.33 | 1985.00 | 198.00 | 25.85 | 105.81 | 9 | 2 | -0.99107 | 4 |
| COMORO ISLANDS | 473.33 | 1750.00 | 148.33 | 110.74 | 88.92 | 14 | 3 | -0.89858 | 5 |
| SUDAN | 414.43 | 2002.50 | 172.00 | 31.18 | 123.15 | 18 | 4 | -0.85597 | 6 |
| CENTRAL AFRICAN REPUBLIC | 400.00 | 1852.50 | 189.33 | 85.44 | 158.88 | 8 | 13 | -0.84345 | 7 |
| GUINEA-BISSAU | 180.00 | 2228.50 | 248.00 | 17.70 | 193.24 | 8 | 17 | -0.82703 | 8 |
| MALAWI | 200.00 | 2048.00 | 248.33 | 53.07 | 218.13 | 4 | 28 | -0.80104 | 9 |
| BURUNDI | 213.33 | 1923.50 | 189.87 | 22.87 | 204.42 | 7 | 18 | -0.78201 | 10 |
| HAITI | 368.87 | 1995.00 | 133.33 | 58.22 | 113.33 | 23 | 5 | -0.78187 | 11 |
| YEMEN | 588.67 | 2254.50 | 187.00 | 211.22 | 84.71 | 25 | 9 | -0.73091 | 12 |
| MAURITANIA | 496.67 | 2450.50 | 213.33 | 257.17 | 88.08 | 26 | 11 | -0.68191 | 13 |
| BANGLADESH | 206.87 | 2047.00 | 165.87 | 25.58 | 223.82 | 15 | 22 | -0.63436 | 14 |
| SAO TOME & PRINCIPE | 420.00 | 2176.00 | 55.00 | 78.70 | 61.48 | 37 | 1 | -0.63187 | 15 |
| UGANDA | 186.67 | 2207.50 | 173.67 | 19.82 | 219.80 | 19 | 21 | -0.60908 | 18 |
| BURKINA FASO | 273.33 | 2202.00 | 222.00 | 55.56 | 244.20 | 10 | 32 | -0.60767 | 17 |
| GUINEA | 478.67 | 2256.00 | 237.33 | 130.06 | 202.58 | 13 | 30 | -0.60776 | 18 |
| MALI | 253.33 | 2247.00 | 265.33 | 64.84 | 279.23 | 5 | 39 | -0.59830 | 19 |
| KENYA | 360.00 | 2055.50 | 98.00 | 95.52 | 147.89 | 32 | 14 | -0.56448 | 20 |
| BOLIVIA | 640.00 | 2000.50 | 150.33 | 134.85 | 181.24 | 24 | 23 | -0.52848 | 21 |
| NIGER | 303.33 | 2245.50 | 221.33 | 48.62 | 271.21 | 12 | 35 | -0.52538 | 22 |
| GHANA | 393.33 | 2083.00 | 140.00 | 80.64 | 202.95 | 27 | 24 | -0.51845 | 23 |
| PAKISTAN | 393.33 | 2355.50 | 151.33 | 77.21 | 183.70 | 33 | 19 | -0.49108 | 24 |
| ZAMBIA | 430.00 | 2017.00 | 149.00 | 182.89 | 209.85 | 22 | 33 | -0.48683 | 25 |
| MADAGASCAR | 220.00 | 2180.50 | 178.00 | 47.28 | 275.47 | 18 | 36 | -0.46674 | 26 |
| TANZANIA | 110.00 | 2198.00 | 173.87 | 33.15 | 284.88 | 17 | 38 | -0.46225 | 27 |
| LESOTHO | 548.87 | 2107.00 | 132.67 | 307.50 | 115.91 | 29 | 25 | -0.48027 | 28 |
| INDIA | 346.67 | 2238.50 | 137.67 | 28.62 | 229.87 | 28 | 27 | -0.45127 | 29 |
| NICARAGUA | 543.33 | 2212.50 | 83.67 | 100.41 | 139.88 | 35 | 12 | -0.44810 | 30 |
| NEPAL | 180.00 | 2230.50 | 176.33 | 28.27 | 285.88 | 20 | 37 | -0.44410 | 31 |
| GAMBIA, THE | 340.00 | 2269.00 | 237.87 | 216.20 | 250.80 | 11 | 45 | -0.43694 | 32 |
| PERU | 1406.67 | 1955.00 | 110.67 | 199.49 | 114.80 | 36 | 18 | -0.39334 | 33 |
| NIGERIA | 336.67 | 2207.50 | 175.00 | 127.37 | 265.77 | 21 | 42 | -0.37018 | 34 |
| SRI LANKA | 466.87 | 2245.50 | 30.67 | 160.01 | 127.90 | 43 | 15 | -0.30725 | 35 |
| TOGO | 406.67 | 2295.50 | 147.00 | 193.98 | 232.77 | 31 | 41 | -0.27603 | 36 |
| Borderline | | | | | | | | | |
| HONDURAS | 676.67 | 2246.00 | 86.67 | 200.04 | 175.00 | 38 | 29 | -0.23704 | 37 |
| DOMINICAN REPUBLIC | 850.00 | 2310.50 | 78.00 | 332.03 | 91.86 | 44 | 20 | -0.23187 | 38 |
| BENIN | 360.00 | 2389.00 | 148.87 | 91.00 | 283.77 | 34 | 43 | -0.22798 | 39 |
| GUATEMALA | 923.33 | 2261.00 | 94.33 | 198.19 | 170.48 | 40 | 28 | -0.20878 | 40 |
| SENEGAL | 703.33 | 2328.50 | 185.33 | 202.21 | 285.35 | 30 | 48 | -0.20023 | 41 |
| CAPE VERDE | 686.67 | 2865.50 | 58.33 | 271.88 | 42.93 | 49 | 10 | -0.18046 | 42 |
| EL SALVADOR | 1013.33 | 2313.00 | 81.33 | 236.61 | 162.88 | 46 | 31 | -0.12324 | 43 |
| Relatively Food Secure | | | | | | | | | |
| EQUADOR | 973.33 | 2402.50 | 83.33 | 303.73 | 189.42 | 48 | 40 | 0.02436 | 44 |
| PHILIPPINES | 716.87 | 2399.00 | 62.33 | 223.41 | 233.72 | 47 | 44 | 0.04600 | 45 |
| CONGO | 1000.00 | 2280.50 | 110.67 | 589.21 | 145.36 | 39 | 49 | 0.08382 | 46 |
| INDONESIA | 560.00 | 2618.00 | 94.33 | 165.42 | 283.88 | 45 | 48 | 0.11544 | 47 |
| GUYANA | 413.33 | 2454.50 | 71.00 | 348.31 | 241.32 | 41 | 50 | 0.11724 | 48 |
| COLOMBIA | 1253.33 | 2473.50 | 40.33 | 307.99 | 161.81 | 50 | 34 | 0.14394 | 49 |
| EGYPT | 620.00 | 3304.00 | 88.00 | 249.40 | 248.05 | 56 | 47 | 0.37721 | 50 |
| JORDAN | 1260.00 | 2678.00 | 51.00 | 922.31 | 35.97 | 54 | 51 | 0.47422 | 51 |
| MOROCCO | 966.67 | 3044.50 | 108.33 | 308.00 | 308.68 | 53 | 53 | 0.50179 | 52 |
| SWAZILAND | 1006.67 | 2623.50 | 150.00 | 972.77 | 178.38 | 42 | 58 | 0.58747 | 53 |
| JAMAICA | 1500.00 | 2549.00 | 20.00 | 1030.76 | 40.41 | 57 | 54 | 0.85510 | 54 |
| BRAZIL | 2680.00 | 2736.50 | 78.33 | 250.82 | 320.87 | 60 | 52 | 0.78753 | 55 |
| COSTA RICA | 1773.33 | 2711.00 | 20.67 | 720.12 | 191.10 | 58 | 55 | 0.84296 | 56 |
| TUNISIA | 1406.67 | 3155.50 | 62.00 | 703.39 | 204.24 | 59 | 56 | 0.86200 | 57 |
| MEXICO | 2623.33 | 3037.00 | 45.67 | 518.61 | 309.79 | 63 | 57 | 1.18741 | 58 |
| BOTSWANA | 2166.67 | 2251.50 | 85.67 | 1780.58 | 48.99 | 51 | 60 | 1.25535 | 59 |
| PARAGUAY | 1146.67 | 2675.50 | 60.00 | 427.75 | 829.39 | 52 | 61 | 1.38189 | 60 |
| MAURITIUS | 2300.00 | 2897.50 | 28.33 | 1688.98 | 8.56 | 61 | 59 | 1.45004 | 61 |
| SURINAME | 3383.33 | 2438.50 | 38.33 | 1191.99 | 458.27 | 62 | 62 | 2.11423 | 62 |
| PANAMA | 1943.33 | 2256.00 | 31.33 | 2293.92 | 218.35 | 55 | 83 | 2.21260 | 63 |
| POLAND | 1780.00 | 3414.50 | 17.87 | 631.11 | 900.31 | 64 | 64 | 2.72960 | 64 |
| EX-YUGOSLAVIA | 2970.00 | 3525.50 | 24.00 | 1068.13 | 740.27 | 66 | 65 | 3.03541 | 65 |
| BULGARIA | 2313.33 | 3706.00 | 18.67 | 823.62 | 1015.26 | 65 | 66 | 3.40581 | 66 |

Sources: Calculated by A.I.D.'s Food and Humanitarian Assistance Bureau, 1775 R Street, N.W., Washington, D.C. 20036

METHODOLOGY

An initial list of countries for consideration is compiled by first eliminating advanced developed and industrialized nations from the comprehensive list of world nations. Next, countries are identified which are of interest from the perspective of food assistance programming; that is, usually, the list of all countries currently receiving U.S. food aid of any type, including food commodities programmed through the WFP.

The A.I.D. Center for Development Information and Evaluation next takes this refined list of countries and checks the available data for each country. For a country to be included in the final output, at least two years of data must be available for all five basic indicators: GNP per capita, average daily per capita calorie availability, under-five mortality rate, gross foreign exchange earnings, and gross domestic food production.

In some cases, estimated figures from the source institution (World Bank, FAO, UNICEF) can be used to fill in the missing data gaps. In other cases, country data is simply not available or reliable for a given indicator, and the countries in question cannot be included in the calculations.

Three-year average values are calculated for each indicator, and all figures are converted into a per capita basis and normalized. Normalized values for the three "household" indicators (GNP per capita, daily average per capita calorie intake, and under-five child mortality rate) were added together and re-ranked by country, yielding a single micro-level rank for each country. The same procedure is used for the two "national" indicators to create a single macro-level rank for each nation.

The **weighted value** is calculated by multiplying the normalized household value by 2 and then multiplying the normalized national value by 3. These weighted household and national values are added together. The **weighted value** has traditionally been presented in the *World Food Day Report*.

General Notes

Countries were assigned to food security status groups in the following manner:

- all countries with positive values were classified as **relatively food secure**;
- all countries with negative values were classified as **most food insecure or borderline**; and
- of those countries with negative values, countries with values from 0 to -0.25 were classified as **borderline**, and the remaining countries with negative values were classified as **most food insecure**.

Country Notes

The 1990 value for "gross foreign exchange earnings" for **Sierra Leone** was calculated as "GFX=Exports of All Goods and Services." The "GNP per capita" figures for **Sudan** for 1987-1990 were taken from the World Bank's African Development Indicators database, and the 1991 "GNP per capita" value was taken from the World Bank's Social Indicators of Development database. The "GNP per capita" figures for **Yemen** for 1988 and 1989 were taken from the World Bank Atlas 1990, and the "GNP per capita" value for 1990 was taken from the World Bank Atlas 1992.